

RAFALOWICZ, Jan, mgr inz.; BARANOWSKI, Paweł, mgr inz.

Problems of shifting toward the contact with the surface being
ground. Mechanik 35 no.10:547-551 O '62.

1. Pclitechnika, Łódź (for Rafalowicz). 2. Łódzkie Zakłady
Radiowe, Łódź (for Baranowski).

STEFANKO, Stanislaw; IWANOWSKI, Lech; RAFALOWSKA, Janina; SOBKOWICZ, Hanna

Apropos of circulatory disorders in the area of so-called "last-frontier" of the thalamus. Neurol., neurochir., psychiat. Pol.
15 no.1:25-30 Ja-F'65.

1. Z Kliniki Neurologicznej Akademii Medycznej w Krakowie (Kierownik: prof. dr. W. Jakimowicz) i z Kliniki Neurologicznej Akademii Medycznej w Warszawie (Kierownik: prof.dr. I. Hausmanowa-Petrusewicz).

303
P/047/62/013/003/002/003
D207/D308

24/7/80

AUTHORS:

Mazur, Józef and Rafałowicz, Jerzy

TITLE:

The work of the Zakład Niskich Temperatur (Low Temperature Laboratory) on Monocrystalline whiskers

PERIODICAL:

Postępy fizyki, v. 15, no. 3, 1962, 309 - 314

TEKT:
The authors review their own work on whiskers (begun in 1958). Electric fields were found to affect materially the process of growth of copper, silver and iron whiskers prepared by Brenner's method, i.e. by reduction of halides in hydrogen. Ion pairs -- formed by dissociation or by chemical reactions -- were found in high concentrations in the halide vapors from which the whiskers were grown. The ion pairs were directed by the applied field and this affected the growth process. The authors suggest also that one should use the temperature gradient of the relative vapor pressure when considering the mechanism of whisker growth by condensation of pure metal vapors. The electrical resistivity of monocrystalline copper whiskers at -195°C was

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Card 1/2

The work of the Zakład Niskich ...

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only half the resistivity of polycrystalline copper wires of the same diameter; this indicates the higher perfection of the crystal structure of the whiskers. Cu₂O was found to form faster on copper wires than on whiskers because the surface of the whiskers was more perfect in structure. These studies are being continued.

ASSOCIATION: Zakład niskich temperatur, Instytut fizyki PAN Wrocław
(Low Temperature Laboratory , Institute of Physics, PAS
Wrocław)

Card 2/2

MAZUR, J.; RAFALOWICZ, J.

On the possibility of foresight of the whiskers growth conditions from metal vapor pressure in the formed temperature gradient. Acta physica Pol 21 no.4:365-370 Ap '62.

1. Low Temperature Laboratory, Institute of Physics, Polish Academy of Sciences, Wroclaw, and Department of Experimental Physics, University, Wroclaw.

RAFALOWICZ, J.; SUJAK, B.

Characteristics of standard carbon resistors at helium temperatures and their dependence on the measuring current intensity.
Acta physica Pol 25 no.2:193-203 F '64

1. Low Temperatures Laboratory, Institute of Physics, Polish Academy of Sciences, Wroclaw.

ACCESSION NR: AP4040362

P/0045/64/025/003/0427/0436

AUTHOR: Rafalowicz, J.

TITLE: A method for measuring the thermal conductivity of semiconductors in the helium II temperature range, as applied to graphite

SOURCE: Acta physica polonica, v. 25, no. 3, 1964, 427-436

TOPIC TAGS: semiconductor, graphite, thermal conductivity, helium bath temperature

ABSTRACT: A procedure for measuring the thermal conductivity of cylindrical semiconductor specimens immersed directly in a helium bath below the lamda point is proposed. A method is given by which all the quantities appearing in the following equation can be found

$$K(T) = \frac{Q}{4\pi\ell(T_0 - T_g)}$$

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ACCESSION NR: AP4040362

where Q is the Joule heat produced in the entire specimen; l the length of the specimen; T_0 the temperature on the axis of the cylindrical specimen; T_s the surface temperature of the specimen. The measured thermal conductivity of the five carbon resistors (thermometers) versus the proposed method was found to be in good agreement with the results obtained by other workers who used traditional methods. A relatively simple procedure is given for determining the temperature jump on the surface of a current-loaded graphite specimen immersed in a bath of helium I. The author claims this method eliminates the use of adhesives, thus permitting one to avoid contamination of the specimen. The author thanked Dr. B. Sufak for discussions and Dr. B. Makiej for reviewing the paper. Orig. art. has: 8 figures.

ASSOCIATION: Zaklad Niskich Temperatur Instytutu Fizyki PAN, Wroclaw (Low Temperature Laboratory, Institute of Physics of the Polish Academy of Sciences)

SUBMITTED: 20Sep63 DATE ACQ: 15May64 ENCL: 00

SUB CODE: EC NO REF SOV: 003 OTHER: 011

Card 2/2

RAFALOWICZ, J.; SUJAK, B.

Calibration formulas of standard carbon resistor thermometers
for the helium temperature range. Acta physica Pol 25 no. 4:
599-608 Ap '64.

1. Low Temperature Laboratory, Institute of Physics, Polish
Academy of Sciences, Wroclaw.

POLAND

RAFALOWICZ, Jerzy

Low Temperature Laboratory, Institute of Physics, Polish
Academy of Sciences (Zaklad Niskich Temperatur Instytutu
Fizyki PAN), Wroclaw

Crakow, Postepy Fizyki, No 5, Sept-Oct 1965, pp 603-16

"Carbon resistors in low-temperature thermometry."

S 45178-66 EWP(t)/ETI IJP(c) JD/WW
ACC NR: AP6026995 SOURCE CODE: PO/0045/66/029/005/0631/0641

AUTHOR: Rafalowicz, J.; Pega, E.; Sujak, B.

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B

ORG: [Rafalowicz] Low Temperature Laboratory, Institute of Physics, Polish Academy of Sciences, Wroclaw (Zaklad Niskich Temperatur Instytutu Fizyki PAN); [Pega; Sujak] Institute of Experimental Physics, Wroclaw University, Wroclaw (Katedra Fizyki Doswiadczałnej Uniwersytetu Wroclawskiego)

TITLE: On the temperature jump between the surface of an overheated thermometric carbon resistor and helium-I bath

SOURCE: Acta physica polonica, v. 29, no. 5, 1966, 631-641

TOPIC TAGS: helium bath, carbon resistor

ABSTRACT: Starting with the radial distribution function of temperature for a volume-heated solid cylinder, a formula was derived for the effective temperature jump between the surface of an overheated specimen and the helium-I bath

$$\Delta T = (T_{\text{eff}} - T_{\text{HeI}}) - \frac{Q}{4\pi l a T_{\text{eff}}^n}$$

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ACC NR: AP6026995

All quantities appearing in this formula for the temperature jump can be determined experimentally. This made it possible to find the relation between the temperature jump and the power produced in the specimen. A study was suggested of the temperature jump at the surface of overheated cylindric semiconductor specimens by the method based on measurements of the effective temperature of the specimen, the temperature of the helium bath, and the power produced in the specimen, with a graphic determination of the specimen's effective thermal conductivity as a function of its effective temperature. For heat-flux densities over $300 \mu\text{W/cm}^2$ indications were found of a "bubble" convection-type mechanism (occurring in jumps) for the removal of heat from the surface of the superheated specimen into the helium-I bath. Orig. art. has: 6 figures and 12 formulas. [Based on authors' abstract]

[KS]

SUB CODE: 20/ SUBM DATE: 02Aug65/ ORIG REF: 003/ SOV REF: 001/
OTH REF: 007/

Card 2/2 *plw*

ACC NR: AP7003278

PO/0045/66/030/006/1053/1055

AUTHOR: Rafalowicz, J.; Pega, E.; Sujak, B.

ORG: [Rafalowicz] Low Temperature Laboratory, Institute of Physics, PAN, Wroclaw (Zyklad Niskich Temperatur, Instytut Fizyki PAN); [Pega, Sujak] Chair of Experimental Physics, Wroclaw University, Wroclaw (Katedra Fizyki Doswiadczonej, Uniwersytet Wroclawski)

TITLE: On the possibility of the use of technical polycrystalline silicon in low-temperature thermometry (helium temperatures)

SOURCE: Acta physica polonica, v. 30, no. 6, 1966, 1053-1055

TOPIC TAGS: thermometry, low temperature research, silicon, polycrystalline silicon, resistance thermometer, temperature dependence, electric resistance

ABSTRACT: The temperature dependence of the electrical resistance of commercially pure silicon was measured at 4.22—1.8K to study the feasibility of constructing silicon thermometers for this region. Resistance as a function of the temperature for a silicon sample is given in Fig. 1. The samples were calibrated by immersion in a liquid helium bath and temperature was controlled with better than 0.01K accuracy by pumping off helium gas. The experimental function $R(T)$ can be approximated by

$$R = R_0 \cdot e^{\frac{B}{T}} \quad (1)$$

Card 1/3

ACC NR: AP7003278

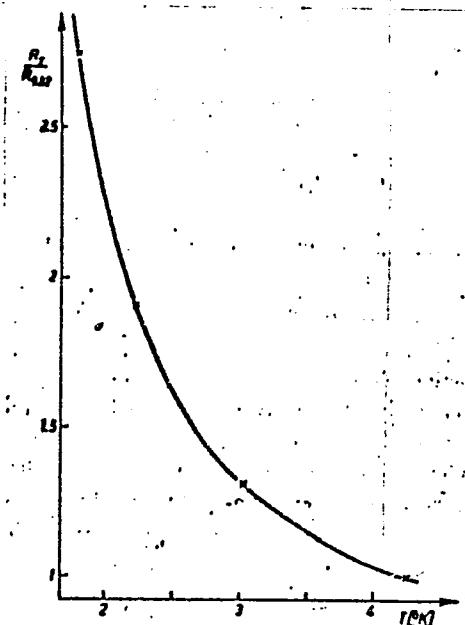


Figure 1. Relative resistance of a silicon sample versus temperature. (R_T is the resistance at the temperature T , $R_{4.22}$ — the resistance of the boiling point of helium)

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ACC NR: AP7003278

β being approximately constant between 3K and 1.8K and decreasing between 3 and 4.2K. Extrapolation of the calibration curve indicated the possibility of using the silicon thermometer to 0.6K, where resistance would reach the order of 10^4 ohms. Orig. art. has: 1 figure and 1 formula. [26]

SUB CODE: 2014/ SUBM DATE: 23Jun66/ ORIG REF: 002/ OTH REF: 004/ SOV REF: 003
ATD PRESS: 5114

Card 3/3

RAFALOWICZ, Z.

Two theories, two methods. p. 290.

Vol. 28, no. 9, Sept. 1955

PRZEGLAD TELEKOMUNIKACYJNY. Warszawa.

SOURCE: East European Accessions List (EEAL), LC, Vol. 5, no. 3, March 1956

RAFALOWICZ, Z.

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- ✓710. TWO THEORIES — TWO METHODS. Z. Rafalowicz.
Przeglad telekom., 1958, No. 9, 290-8. In Polish.
Deals, on the basis of research, with the problem of planning
and determining the future development of urban means of tele-
communication. Two methods of determination are discussed and
a theoretical generalization of the problem is attempted.
Polish Technical Abstracts

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"APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001344010012-5

APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001344010012-5"

LOTEK, Z.

"Economic basis for Planning and Designing Communications", p. 37, (PRZEGIAD
TELECOMUNIKACYJNY, Vol. 25, No. 2, Feb. 1955, Warszawa, Poland)

SC: Monthly List of East European Accessions, (EMAL), LC, Vol. 4, No. 5, May
1955, Uncl.

17

CA

Comparison of various methods for the detection of impurities in anesthetic ether. H. Rafalska. Roczniki Poddwórego Zakładych Hig. 1, 311-22 (1950).—It was found that the Nessler reagent was the most sensitive reagent for the detection of aldehyde and ketone impurities in tech. grade of ether having a sensitivity of 1:10⁴. The detection of acetone by means of the nitroprusside reaction was found to be too insensitive for practical use because it had a sensitivity of only 1:10⁵. L. J. Piotrowski

Chemical Abstracts

CATEGORY :

ABS. JOUR. : AZKhia., No. 16 1959, No.

58099

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APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001344010012-5"

Method of Rapid Colorimetric Test in the Separation of Sulfamides in Medicinal Preparations

ORIG. PUB. : Chem Analit, 2, No 4, 366-375 (1958)

ABSTRACT : The authors have developed new methods for the separation of sulfamides in therapeutic preparations, based on the use of mixtures of n-butanol + 1m. NH₄OH (100 : 30) and n-butanol + water (100 : 19) as solvents. The compositions of the preparations investigated are listed. The method [sic] developed makes it possible to detect impurities in sulfamate preparations, e.g., the presence of sulfathiazole in analgesic preparations.

From authors' summary

CARD: 1/1 * Poprocka, B.

M. POMAZANSKA, Institute of Chemistry, Warsaw, Poland
M. POMAZANSKA

Separation of mixtures of phenothiazine derivatives with
the thin-layer chromatographic method. I. Acta Pol. pharm.
21 no.1-2 '74.

I. A. Poznański, Central Analytical and Testing Laboratory of the PZL Mielec
(Kierownik: prof. mgr inż. A. Małogostowska).

RAFALOWSKA, H.

2

✓ 672. Application of micro-crystallographic methods to the detection of certain derivatives of nicotinic acid in medicinal preparations. Z. Margasinski and H. Rafalowska (Zaklad Chem. Inst. Lekow, Warsaw). *Z. Zesom. Chem.*, 1955, 11, 760-702.—A micro-crystallographic method based on the complex formation of the amide, diethylamide and hydroxymethylamide of nicotinic acid with certain compounds of copper, mercury and bismuth has been developed for their detection. The complexes have distinctive crystalline forms and are suitable for the differentiation of the above substances. The reagents used are CuSO_4 and NH_4SCN , Mayer's and Dragendorff's reagents. The crystals formed are illustrated.

K. F. SPOREK

CA

17

Identification and determination of barbituric acid derivs. Halina Rafalowska (P.Z.H., Warsaw, Poland). *Koznicki Państwowy Zakładu Hig.*, 2, 220-40 (1951). - Known methods, encountered in the scientific literature and in various pharmacopelias, are tested and modified when necessary to give a set of reactions for the detn. and identification of the barbituric acid derivs. Thus, it was found that the red-purple complexes formed by barbituric acid derivs. with Co and piperidine are a non-specific test, as the test is also given by salicylic and acetylsalicylic acids. Some color reactions of individual barbituric acid derivs. give different results than reported in the literature. Reaction of 5-(1-cyclohexen-1-yl)-1,5-dimethylbarbituric acid (I) with resorcinol (G. R. Turfitt, *Quart. J. Pharm. Pharmacol.* 20, 109 (1947)) produces a yellow color in alk. soln. in daylight (literature: wine red) and 5,5-diallylbarbituric acid (II) produces gray-green in acid medium (literature: light green); I and vanillin (III) do not produce the described green color on heating with acid. II and III on addn. of EtOH give a purple, not blue-green color. In the reaction of barbituric acid derivs. with III color changes take place too quickly for accurate observations if the samples are larger than 0.01 mg; if the samples are smaller than 0.005 mg. compds. reported as forming a strong blue color give a purple color instead. Paper chromatography of barbituric acid derivs. with 70% EtOH gives R_f values of 0.85, 0.80, 0.81, and 0.83 for the Na salts of luminal, I, veronal, and amytal, resp. The barbituric acid derivs. are developed on the paper by using alc. Hg salts of diphenylcarbazone (IV) i.e. 5 ml. 1% alc. IV, 1 ml. 5% $HgCl_2$, and 0.25 ml. 30% HOAc are add. to 30 ml. with EtOH.

I. Z. Roberts

WARECKA, Krystyna; RAFALOWSKA, Janina

Degenerative changes in the cervical spine in multiple sclerosis patients. *Neurochir., Psychiat.* Pol. 15 no.1:55-58 Ja-F'65.

1. Z Kliniki Neurologicznej Akademii Medycznej w Warszawie (Kierownik: prof. dr. med. I. Hausmanowa-Petrusewicz).

RAFALOWSKA, Janina; WARECKA, Krystyna

Epileptic seizures in the course of multiple sclerosis. Neurologia etc.,
polska 12 no.3:317-323 '62.

1. Z Kliniki Neurologicznej AM w Warszawie Kierownik Kliniki: prof.
dr med. I. Hausmanowa-Petrusewicz.
(EPILEPSY) (MULTIPLE SCLEROSIS)

WARECKA, Krystyna; RAFALOWSKA, Janina

On the connection of disseminated sclerosis with so-called abiotrophy
of the nervous system. Neurol neurochir psych 12 no.2:211-214 Mr-Ap
'62.

1. Klinika Neurologiczna, Akademia Medyczna, Warszawa, Oczki 6.
Kierownik: prof. dr med. I. Hausmanowa-Petrusewicz.

RAFALOWSKA, Janina; WAPECKA, Krystyna

Epileptic crises in the course of disseminated sclerosis. Neurol
neurochir psych 12 no.3:317-323 My-Je '62.

1. Klinika Neurologiczna, Akademia Medyczna, Warszawa (Kierownik: prof.
dr med. I. Hausmanowa-Petrusewicz).

MALOMSKA, Janina; WARLOKA, Krystyna

The problem of familial disseminated sclerosis. Neurologia etc.
polska 11 no.6:793-801 '61.

I. Z Kliniki Neurologicznej AM w Warszawie Kier. prof. dr med.:
I. Rausmanowa-Petrusewicz.
(MULTIPLE SCLEROSIS genetics)

JEDRZEJOWSKA, Hanna; RAFALOWSKA, Janina; WARECKA, Krystyna

Cases of distinct bone changes in syringomyelia. Polski tygod.
lek. 15 no.21:798-800 23 My '60.

1. Z Kliniki Chorob Nerwowych A.M. w Warszawie; kierownik: prof.
dr med Irena Hausmanowa-Petrusewicz.
(SYRINGOMYELIA pathol)
(BONE AND BONES pathol)

RAFALOWSKA, Janina; WARECKA, Krystyna

Attempted evaluation of annual activities of a clinic for multiple sclerosis patients of the A.M.Klinika Neurologiczna in Warsaw.
Polski tygod. lek. 15 no.28:1079-1081 11 Jl '60.

1. Z Kliniki Neurologicznej A.M. w Warszawie; kierownik: prof.
dr med. I.Hausmanowa-Petrusewicz
(MULTIPLE SCLEROSIS hosp & clin)

RAFALOWSKA, Janina; HAUSMANOWA-PETRUSEWICZ, Irena

Neurological complications in boxing. Polski tygod.lek. 14
no.50:2177-2181 D '59.

1. Z Kliniki Chorob Nerwowych A. M. w Warszawie; p.o. kierownika:
prof. dr Irena Hausmanowa-Petrusewicz.
(BOXING wds & inj)
(BRAIN wds & inj)

RAFAL'SKAYA, Ye.

"Deine Gesundheit" ["Your health"]. Reviewed by K.Rafal'skaya.
Zdorov'e 3 no.1:28-29 Ja '57. (MIRA 10:2)
(GERMANY--PUBLIC HEALTH--PERIODICALS)

RAFALCZYK, H., and others

Paper chromatography used for the separation of sulfonamides in medicinal preparations.

p. 366. (CHEMIA ANALITCZNA) (Warszawa, Poland) Vol 2, No. 4, 1957

SO: Monthly Index of East European Accession (EEAI) LC Vol. 7, No. 5, 1958

RAFALOWSKA, Janina; SOBKOWICZ, Hanna

Neurological syndromes during the course of pulmonary cancer.
Neur. &c. polska 10 no.1:61-71 Ja-F '60.

l.Z Kliniki Neurologicznej A.M. w Warszawie, p.o. kierownika:
prof. dr med. I. Hausmanowa-Petrusewicz.
(LUNG NEOPLASMS compl.)
(NEUROLOGICAL MANIFESTATIONS)

WAŁĘCKA, Krystyna; RAFALOWSKA, Janina

On the problem of convulsive seizures in multiple sclerosis.
Neurol. etc., polska 11 no.4:569-574 '61.

1. Klinika Neurologiczna AM w Warszawie Kierownik: prof. dr
I. Hausmanowa-Petrusewicz.
(MULTIFILE SCLEROSIS compl) (CONVULSIONS)

ALFRED WITKOWSKI, Tadeusz MUSIELAK, Józef KOMORNICKI, P.

Frequency of occurrence of particular names of air in Poland. No. 157
Vol. 1, no. 4, 1956. WYDANIE GŁÓWNE WYDawnictwa MON. Warszawa, 1956.
Poland.

See: Eastern European accession. Vol 5, no. 4, April 1956

4.6-56

Rafalowski, Stanislaw, Jak powstaje prognoza meteorologiczna (pogody). [How are synoptic weather forecasts made?] *Gazeta Obronytora PZHM*, Warsaw, 3(9);8-10, Sept. 1950. fig., synoptic chart. DLC: The techniques of weather forecasting, from start to finish, are explained in a concise manner. *Subject Headings:* 1. Synoptic forecasting 2. Poland.

A.M.P.

551.509.31

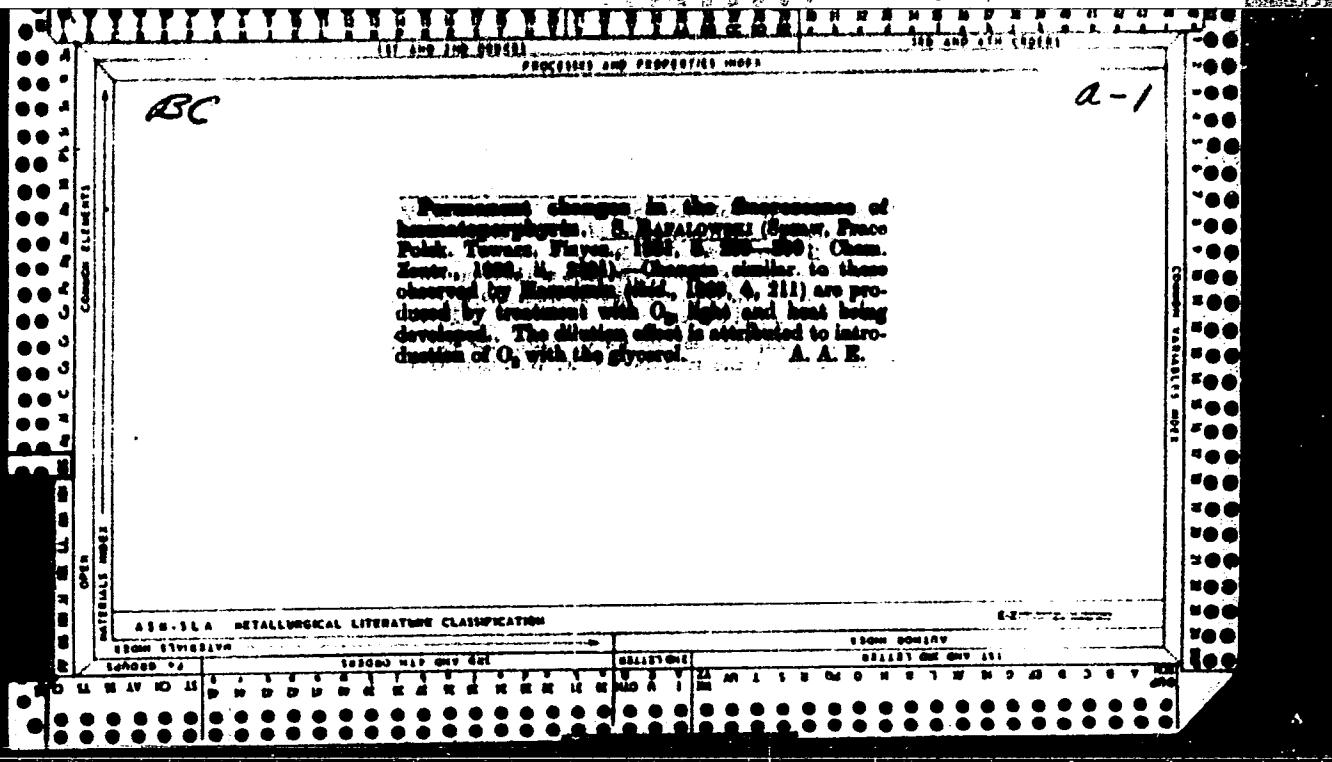
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1.6-56

Rafalowski, Stanislaw, Jak powstaje prognoza meteorologiczna (pogody). [How are
mete weather forecasts made?] *Gazeta Observatora PHM*, Warsaw, 3(9):8-10, Sept.
1950. fig., synoptic chart. *DLC* "The techniques of weather forecasting, from start to
finish, are explained in a concise manner. *Subject Headings:* 1. Synoptic forecasting. 2. Poland.
3. M.P.

SSI.S09.31

HV
JL



Fine structure of spectral lines of light scattered by liquids. B. KARATOWSKI (*Nature* 126, 405 (1931)).—The fine structure of the lines scattered by liquids was studied by passing light from a ring-shaped Hg arc through a liquid in a container inside. The scattered light was passed from a monochromator to a Lummer-Gehrcke plate. With Cellophane no new line was found similar to that from Cello. The optical arrangement does not affect the spectrum noticeably. B. T. ROSENBLUM

APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001344010012-5"

Raman bands of water. STANISLAW RAFAŁOWSKI. *Bull. intern. acad. Polonaise* 1931A, 623-8 (in English); cf. *C. A.* 26, 376. —With a HCl soln. the outer components of a band disappear with increasing concn. while the middle component is broadened, contrary to the statement of Rao (*C. A.* 25, 2032) who found that an increase of the concn. of an electrolyte causes an increase of the sharpness of the bands. The broadening of the rays diffused by HCl without a change in the wave length has an asymmetric character.

J. WIERZBIAK

ASA 518 METALLURGICAL LITERATURE CLASSIFICATION

A 53 J

2868. Raman Bands of Water. S. Rafalowski. *Acta Polonica Soc. of Letters, Bull. 7* 104, pp. 623-628, July-Dec., 1931. In English.—The Raman bands of water are observed using a ring-shaped mercury arc surrounding the tube, so placed that light entered the sides of the tube in a direction away from the spectroscope, so that unscattered light should be lost in the usual horn-shaped end of the tube. In this way the background of the plates obtained was very clear. Results are reported for the bands of water scattered in pure water, solutions of HCl and of HNO₃ of various concentrations. In the case of the HCl solution, the bands of water became less sharp as the concentration increased, while those of HNO₃ became sharper. The bands observed are believed to be triple, and not double, as reported by some observers. Microphotometer records are included in support of the contentions put forward. A.C.M.

Nuclear moments of tellurium and selenium isotopes
S. Rafalski, *Acta Phys. Polonica* 2, 119-123 (1953) (in German).—R. tested the hyperfine structure of the arc spectra of Te and Se, as produced in an evacuated quartz tube in the presence of 1-2 mm. of He and excited by

means of about 1000 v. a. c. In such conditions the metal tested evap. quickly, producing in a short time in addn. to the He spectrum the arc spectrum of the metal of the same intensity. With Se both the arc and the band spectra are visible. The latter is not found with Te. Expts. with S showed that the band spectrum is very strong and does not permit other investigations. The interference is measured by means of a Lummer-Gehrecke quartz plate. The strongest lines in the Te spectrum are: 2709.03 ($5^1D_4 - 6^1S_1$), 2580.73 ($5^1P_1 - 6^1S_1$), 2345.78 ($5^1P_1 - 6^1S_1$), 2383.24 ($5^3P_1 - 6^1S_1$), 2259.02 ($6^1P_1 - 6^1S_1$) Å. All analyzed spectral lines are simple. This simplicity of the lines permits the conclusion that even-numbered isotopes of Te and Se have nuclear moments of the value 0 and show, similarly to other medium-heavy elements, no elec. shifting of the lines. J. Wiertelak

RAFALOWSKI, S.

SCIENCE

Periodical: GAZETA OBSERWATORA. P.I.H.M. Vol. 11, no. 6, June 1958.

RAFALOWSKI, S. Tornadoes at Rawa Mazowiecka and Nowe Miasto, May 1958.
p. 7.

Monthly List of East European Acquisitions (EEAI), LC, Vol. 8, No. 3, May 1959
Unclass.

RAFALOWSKI, S.

Problems in the meteorologic forecast of floods, p. 53. (PRZEGLAD METEOROLICZNY I HYDROLOGICZNY, Warszawa, Vol. 6, no. 3/4, 1953.)

SC: Monthly List of East European Accessions, (EEAI), LC, Vol. 4, No. 6, Jun. 1955, Uncl.

RECORDED,

"...any other factors involved in the occurrence of [name]."

Report of Committee on Intelligence, House of Representatives, 100th Cong., 1st Sess., H.R. Rep. No. 100-106, Oct. 1987, p.

10; House on Library on Assassinations Hear., Vol. 1, "H. R. 6010, 100th Cong. of Congress

Rafałowski, S.

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J 8E-90

J. Rafałowski, Stanisław. Problemy meteorologicznej prognozy powodzi. [The problems of the meteorological forecasting of floods]. "Przegląd Meteorologiczny i Hydrologiczny", Warsaw, 6(3/4):53-61, 1953. 2 figs. DWB—Methods of forecasting floods vary in dependence on the type of floods which are to be forecast. The author proposes a classification of floods based on the differentiation of causes, discusses the dynamics of and the meteorological conditions favoring their development and outlines the methods of forecasting them. He discusses: 1. Floods caused by the formation of ice blockings on rivers; 2. Floods connected with storms on the sea coast, mainly in river mouths; 3. Floods caused by exceptionally abundant rains and 4. Floods connected with rapid melting of the snow cover. In all above mentioned cases the details of variation of individual processes can be analyzed only in the context of an accurate general long-range forecast. Besides that, almost all phenomena require a close analysis in regard to concrete local conditions. Subject Headings: 1. Flood forecasting 2. Flood classification. — I.M.P.

EE any

RAFALOWSKI, Stanislaw

23 March, 1961 - the First World Meteorological Day. Przegl. geofiz.
6 no.1/2:3-4 '61.

1. Państwowy Instytut Hydrograficzno-Meteorologiczny, Warszawa.

RAFALOVSKIY, V.A. [Rafalovs'kyi, V.A.]; TREFILOV, V.I.

Magnitude of coupling forces in ω -phases. Ukr. fiz. zhur. 9
no.11:1270-1271 N '64 (MIRA 18:1)

1. Institut metallofiziki Akad. UkrSSR, Kiyev.

ACC NRI A-6014580 (A,N)

SOURCE CODE: UR/0137/65/000/013/D043/D044

AUTHORS: Gridnev, V. N.; Chernenko, N. P.; Rafailovskiy, V. A.

TITLE: Mechanical properties of titanium alloys after cold deformation

JOURNAL: ref. zh. Metallurgiya, Abs. 11D304

PUB. LOC.: Sb. Stal'n. kach'tv. Vyp. 2. Kiyev, Tekhnika, 1965, 405-409

TOPIC TAC: titanium alloy, wire, plasticity, material deformation, annealing,

cold drawing

ABSTRACT: The mechanical properties of cold drawn wire of previously vacuum annealed commercial Ti alloy specimens were investigated. It was found that preliminary vacuum annealing does not yield an optimum combination of strength and plasticity of cold drawn wire. A preliminary electrothermal treatment did yield wire of satisfactory strength and plasticity after cold drawing. The effectiveness of application of electrothermal treatment in obtaining wire of high mechanical properties was corroborated. A. Leont'yev [Translation of abstract]

SUB CODE: 11,13,20

UDC: 621.771.3.001

RAFALSKA, H.

Structure of leaves of Datura innoxia Mill. (erroneously classified
as Datura metel L.). Acta Poloniae pharm. 11 Suppl.:106-107 1955.

1. Zadlad Botaniki Farmaceutycznej Akademii Medycznej., Poznan.
(DATURA,
innoxia, anat.)

PETRISHCHEVA, Polina Andreyevna, prof.; RAFAL'SKAYA, Ye.B., red.;
STAROSTENKOVA, M.M., red.izd-va; SAVCHENKO, Ye.V., tekhn.red.

[How diseases of wild animals become diseases of man] Kak
bolezni dikikh zhivotnykh stanoviatsia bolezniami cheloveka.
Moskva, Izd-vo "Znanie," 1959. 31 p. (Vsesoiuznoe obshchestvo
po rasprostraneniiu politicheskikh i nauchnykh znanii. Ser.8.
Biologiya i meditsina, no.14) (MIRA 12:9)

1. Chlen-korrespondent Akademii meditsinskikh nauk SSSR (for
Petrishcheva).
(ANIMALS AS CARRIERS OF DISEASE)

RAFAL'SKAYA, Ye.

Green city. Zdorov'e 2 no.10;25-26 0 '56.
(STALINOGORSK--LANDSCAPE GARDENING)

(MLB 9:11)

RAFAL'SKAYA, Ye.

Potatoes. Zdorov'e 3 no.5:21-24 My '57.
(POTATOES)

(MLRA 10:6)

RAFAL'SKAYA, Ye.

Medicine for all. Zdorov'e 3 no.10:9-10 0 '57.
(HEALTH EDUCATION)

(MIRA 10:11)

STANKOV, Anatoliy Govrilovich; RAFAL'SKAYA, Ye.B., red.; BUL'DYAYEV,
N.A., tekhn.red.

[Health and longevity] Zdorov'e i dolgoletie. Moskva, Gos.
izd-vo med.lit-ry Medgiz, 1960. 190 p.

(MIRA 14:2)

(HYGIENE)

(LONGEVITY)

RAFAL'SKAYA, Ye.B.

Here they study blood. Zdorov'e 7 no. 2:20-22 F '61.

(MIRA 14:2)

(BLOOD—EXAMINATION)

RAFAL'SKAYA, Ye.

On the heels of our hero. Zdercov'e 8 no.3:25 Mr '62. (MIRA 15:4)
(GUBANOV, NIKOLAI MIKHAILOVICH)

PETRISHCHEVA, Polina Andreyevna, prof.; FEDULOV, S.G. [Fedulov, S.H.],
translator; RAFAL'S'KA, Ye.B. [Rafal's'ka, IE.B.], red.

[How diseases of wild animals become human diseases] IAk khvoroby
dykykh tvaryn staiut' khvorobamy liudyny. Kyiv, 1959. 32 p.
(Tovarystvo dlia poshyrennia politychnykh i naukovykh znan' Ukrains'koi RSR. Ser.5, no.14) (MIRA 13:2)

1. Chlen-korrespondent Akademii meditsinskikh nauk SSSR (for Petrishcheva).
(Animals as carriers of disease)

RAFALSKI, H., Dr; SEREJSKI, J., Dr; SOKOLOWSKA, M., Dr

Social-educational camps as a new form of educational, scientific
and medical work in the country. Zdrowie pub., Warsz. no.1:72-80
Jan-Feb 55.

(EDUCATION, MEDICAL,
in Poland, social education camps in country, new form
of educ. & soc. work)

(HEALTH, education,
in Poland, rural areas, soc. & educ. camps of med. schools)

DOLINSKA-SZEJNFELD, Maria; RAFALSKI, Henryk

General observation on health of children in the rural area Z.
Pediatria Polska 30 no.10:975-984 Oct.'55.

1. Z II Kliniki Chorob Dzieci A M w Lodzi Kierownik: prof. dr.
med. Fr. Redlich. Lodz, Armii Czdwonej 15.

(RURAL CONDITIONS,

health of child. in Poland)

(PUBLIC HEALTH, statistics,

in Poland, health of child. in rural areas)

BROZIK, Henryka; RAFAILSKI, Henryk

Several data on rheumatic disease among children in rural areas. Pediat.
polska 32 no.7:783-796 July 58.

1. Z I Kliniki Chorob Dzieci A. M. w Lodzi Kierownik: doc. dr med.
E. Wilkoszewski i Z Zakladu Higieny Ogolnej i Spolecznej A. M. w Lodzi.
Kierownik: doc. dr med. J. Mofer. Adres: Lodz, ul. Armii Czerwonej 15.
(RHEUMATIC FEVER, statist.
in rural areas in child. (Pol))

RAFALSKI, Henryk

Vitamin D deficiency among children from urban and rural areas according to physical and radiological studies and according to tests for alkaline phosphatase in the blood serum. Pediat. pol. 37 no.4:369-392 Ap '62.

1. Z Katedry i Zakladu Higieny Ogolnej i Spolecznej AM w Lodzi Kierownik:
doc. dr med. J. Nofer.

(RICKETS statist) (PHOSPHATASES blood)
(ENVIRONMENT) (RURAL HEALTH)

RAFALSKI, Henryk

Feeding of rural infants. Pediat. pol. 37 no.12:1349-1357 D '62.

1. Z Zakladu Higieny Ogolnej i Spolecznej AM w Lodzi Dyrektor: doc. dr med. J. Nofer i z Instytutu Matki i Dziecka w Warszawie Dyrektor: prof. dr med. B. Gornicki.

(INFANT NUTRITION)

RAFALSKI, Henryk, dr med.; NOGAL, Edward

Short method of indirect calculation of nitrogen in the body of
a rat as applied in studies on protein assimilation. Pt.1.
Roczn panst zakl hig 15 no.3:257-266 '64.

1. Department and Institute of General and Social Hygiene, School
of Medicine, Lodz. Acting head: [dr med.] H.Rafalski.

POLAND/Chemical Technology. Chemical Products and Their
Applications. Chemical Wood Products. Hydrolysis
Industry.

II

Abs Jour: Ref Zhur-Khim., № 8, 1959, 29058.

Author : Rafalski, J.

Inst :

Title : The Drying of Wood in Petrolatum..

Orig Pub: Przysyl Drzewny, 2, № 8, 23-25 (1958) (in Polish)

Abstract: The author discusses problems connected with high-temperature drying in general and in particular the new automatic dryers produced in Germany in which the drying is carried out with superheated steam at 110-125°. In the USSR and in the USA drying in solutions of organic solvents is practised on a

Card : 1/2

POPIELARZ, Edmund; RAFALSKI, Jozef

Critical evaluation of the wood drying method in toluene vapors. Inst techn drew 8 no.4:55-77 '62.

1. Zaklad Higrotermicznej Obrobki Drewna.

POLAND/Chemical Technology - Electro-Chemical Industries,
Electroplating, Chemical Current Source.

H.

Abs Jour : Ref Zhur - Khimiya, No 16, 1958, 54598
Author : Mints, Rafal'sky, Bzhesky
Inst : -
Title : Preparation of Thorium Metal in a Compact State by the
Electrolysis of Melted Salts.
Orig Pub : Roczn. Chem., 1957, 31, No 2, 741-742

Abstract : Thorium metal was prepared in a compact state by the
electrolysis of a melted mixture of Th, Zn and Ca salts.
The electrolysis was conducted in Argon atmosphere at
1000-1200°C, and $D_k = 300-800 \text{ a/s m}^2$, with a Mo- cathode.
The metal obtained contains 94.4% of Thorium, traces of
zinc, and other impurities.

Card 1/1

45197-66 MAP(w) IIE(c) FM
ACC NR: AP6027453

SOURCE CODE: PO/0033/66/018/002/0151/0163

27
B

AUTHOR: Rafalski, P.

ORG: Institute of Nuclear Research, PAN, Swierk, near Warsaw (Institut badan jadrowych PAN Swierk K. Warszawy)

TITLE: Three steady-state two-dimensional problems of thermoelasticity in regions with cylindrical holes 26

SOURCE: Archiwum mechaniki stosowanej, v. 18, no. 2, 1966, 151-163

TOPIC TAGS: thermoelasticity, steady state problem, two dimensional problem, infinite cylinder

ABSTRACT: The following three steady state two dimensional problems of thermoelasticity were solved: a) the problem of a semi-infinite wall having a circular coolant hole, b) the problem of an infinite cylinder having a circular coolant hole, and c) the problem of an infinite wall having two circular coolant holes. The two-dimensional state of strain is analyzed. The temperature and stress distributions are determined for the case when temperature and pressure are applied to the

Card 1/2

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ACC NR: AP6027453

boundaries of the body being examined. The results are presented in the closed form and are shown in diagrams. Orig. art. has: 10 figures and 44 formulas.
[Based on author's abstract] [NT]

SUB CODE: 13/ SUBM DATE: 15Jul65/ SOV REF: 001/ OTH REF: 002/

Card 2/2 *pla*

REF ID: A6511

Urządzenia elektryczne wagonów tramwajowych (Electric street car installations), by W. Rafalski. Reported in New Books, (Nowe Ksiazki), No. 6, March 15, 1956.

"APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001344010012-5

RAPAL'KIV, A.K., aspirant

Lima-bean pod borer in the southern Ukraine, (French, text. of
vred. i bol. 9 no.626-17 '62) (MIRA 173)

APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001344010012-5"

RAFAL'SKIY, A.V.

The UGT-8 pipe bending unit. Biul.tekh.-ekon.inform. no.5:19-20 '60.
(MIRA 14:3)

(Pipe bending)

RAFAL'SKIY, A. V., inzh.

New rigs for horizontal boring. Stroi. i dor. mashinostr. 5
no.8:24-26 Ag '60. (MIRA 13:8)
(Boring machinery)

BENDLER, A.I., inzh.; RAFAL'SKIY, A.V., inzh.

The UGR2 installation for horizontal drilling. Stroi.truboprov.
5 no.1:27-29 Ja '60. (MIRA 13:8)
(Gas, Natural--Pipelines)
(Boring machinery)

14(9)

SOV/95-59-3-13/14

AUTHOR: Rafal'skiy, A.V., Engineer
TITLE: The Book on "Bending of Pipes" (Kniga o gnut'ye trub)
PERIODICAL: Stroitel'stvo truboprovodov, 1959, Nr 3, p 30 (USSR)

ABSTRACT: The article is a review of the book by A.I. Gal'perin, entitled "Bending of Pipes", published in 1958 by the State Publishing House of Literature on Construction, Architecture and Building Methods; it contains 130 pages. The writer of the review speaks in laudatory terms about the book and acknowledges the fact that the author has covered the subject exhaustively, though the information given is at times too concise to be useful for practical purposes. The book deals with all methods of bending pipes, including bending in hot and cold condition.

Card 1/1

BERNASKOVSKIY, Yu.T.; RAFAL'SKIY, B.V.

Electric level indicator for the sodium hydroxide solution in a
decarbonizer. Kislerod 12 no.2:47-48 '59. (MIRA 12:8)
(Liquid level indicator) (Oxygen)

14(1)

AUTHORS: Bernasovskiy, Yu. T., Rafal'skiy, B. V. SOV/67-59-2-12/18

TITLE: Electric Indicator of the Level of the Caustic Acid Solution
in the Decarbonizer (Elektricheskiy ukazatel' urovnya rastvora
yedkogo natra v dekarbonizatore)

PERIODICAL: Kislorod, 1959, Nr 2, pp 47-48 (USSR)

ABSTRACT: The level of the caustic acid solution in the decarbonizer has hitherto been observed by means of control valves. For the purpose of a less complicated observation a device was designed upon a suggestion of B. V. Rafal'skiy whereby the level can be easily checked. The principle of the device is based on the electrical conductivity of the sodium solution. A smaller communicating vessel is connected to the container of the decarbonizer into which three wires of different length are introduced. As soon as the wires are dipped into the lye an electric circuit is closed and small lamps flash up. The assumption that the polyvinyl insulation of the wires might be rapidly destroyed in the strong lye proved to be unfounded. After an operation of 900 hours the insulation was still undamaged. The observation of the level of the lye secures

Card 1/2

Electric Indicator of the Level of the Caustic Acid SOV/67-59-2-12/18
Solution in the Decarbonizer

more accurate checking than the hitherto employed control valves; it permits uninterrupted and remote control. There is 1 figure.

Card 2/2

RAFAL'SKIY, I. (Ussuriysk, Primorskiy kray)

Fire crowbars. Pozh. delo 4 no. 7:19 J1 '58.
(Fire departments--Equipment and supplies)

(MIRA 11:S)

RAFALSON D.I.

11B

Evaluation of nicotinic, magnesium, calcium, and lobeline methods of determination of the rate of blood circulation
D. I. Rafal'son (Blood Transfusion Inst., Leningrad). *Terapret. Arkh.* 23, No. 4, 57-62(1951). --The nicotinic acid method has the advantage of being completely harmless, but gives slightly lower results than those obtained from the other 3 methods. The Mg method is superior to the Ca method since accidental subcutaneous deposition does not lead to complications. The lobeline method gives more objective results, is suitable for graph construction, etc., but frequently gives side reactions (nausea, shortness of breath).
G. M. Kosolapoff

VOROB'YEV, A.A.; ASHKINAZI, L.I.; RODYAKINA, V.Ya.; RAFAL'SON, D.I.; BRON, O.B.

Change in the blood as an index of the general reaction of the organism to the administration of precipitated anatoxin. Zhur. mikrobiol.epid. i immun. 28 no.1:84-89 Ja '57. (MLRA 10:3)

1. Iz Leningradskoy gorodskoy stantsii perelivaniya krovi i Voyenno-morskoy meditsinskoy akademii.

(CLOSTRIDIUM TETANI,
toxin, eff. on blood (Rus))

(BLOOD,
eff. of Clostridium tetani toxin (Rus))

BARABANOV, V.F.; GONCHAROV, G.N.; KRYLOVA, L.Ya.; RAFAL'SON, M.B.

Evolution of fluorite crystal forms in the ore veins of the
Bukaka deposit. Zap. Vses. ob-va 92 no.3:316-322 '63.
(MIRA 17:9)

1. Kafedra mineralogii Leningradskogo universiteta.

RAFAL'SKIY, R.

Production of uranium in the Union of South Africa. Atom.energ.
8 no.6:572-573 Je '60. (MIRA 13:6)
(South Africa, Union of--Uranium)

4.00.00

77231
SOV/89-8-1-25/29

AUTHOR: Rafal'skiy, R.

TITLE: Uranium Production in Canada. The News of Science and Technology

PERIODICAL: Atomnaya energiya, 1960, Vol 8, Nr 1, pp 82-84 (USSR)

ABSTRACT: This article describes the Canadian uranium deposits and presents detailed statistics on Canadian uranium production in 1958. All of the above data is compiled from 1 U.S., 1 Soviet, and 5 U.K. references listed. The five most recent English-language references are: (U.S.) Mining World, 21, Nr 8, 39 (1959); Mining J., Nr 6475, 296 (1959); West. Miner and Oil Rev., 32, Nr 8, 21 (1959); West. Miner and Oil Rev., 32, Nr 6, 35 (1959); Appl. Atomics, Nr 207, 21 (1959).

Card 1/1

Rafail'sky R.P. 6
21 27 454
Action of hydrothermal sulfide solutions on cobalt and
nickel arsenides^{2/3}; P. Rafail'ski (Inst. Geol. Ore De-
posits, Petrog., Mineral. and Geochem. Acad. Sci. U.S.S.R.,
Moscow); *Geokhimiya* 1956, No. 7, 67-72.—A report of
qual. expts. on treatment of Co and Ni arsenides with aq.
solns. of Na₂S₂O₃ and H₂S at elevated temps. and pressures.
The purpose of the expts. was to follow the changes which
can occur with arsenides deposited previously in hydro-
thermal veins under natural conditions, with action on them
later of solns. contg. S. Minerals studied were ematite
and niccolite. Native Ag, As, and argentite which are
often assoc'd. with the minerals in hydrothermal deposits
were also studied. The action of solns. of Na₂S₂O₃ and
H₂S on these minerals at 300° was studied. Results of
expts. with arsenides are tabulated. Another table gives
results of chem. analyses of ematite before and after treat-
ment with 0.5N soln. of Na₂S₂O₃ at 400°. G. S. M.

RAFAL'SKIY, R.P.

Solubility of ore-forming sulfides in aqueous solutions.
Ya. I. Ol'shanskii and R. P. Rafal'skiy. Proc. Acad. Sci.
U.S.S.R., Sect. Geochim. 108, 41-3(1950)(English transla-
tion).—See C.A. 51, 962d.

R.M.R.

2

2

Khimiya, R.F.

USSR/ Cosmochemistry. Geochemistry. Hydrochemistry

D.

Abs Jour : Referat Zhur - Khimiya, No 4, 1957, 11552

Author : Ol'shanskiy Ya.I., Rafal'skiy R.P.

Inst : Academy of Sciences USSR

Title : On Solubility of Ore-Forming Sulfides in Aqueous Solutions

Orig Pub : Dokl. AN SSSR, 1956, 108, No 5, 882-884

Abstract : On the basis of two experiments of crystallization of covellite and galenite from aqueous solutions at 300° the conclusion can be drawn that solubility of sulfides in aqueous solutions at elevated temperatures exceeds considerably the values utilized at the present time in geological literature.

Card 1/1

SIDOROV, G.P.; RAFAL'SKIY, R.P.

Hydrothermal synthesis of uraninite. Atom. energ. Supplement no.6:
83-85 '57. (MIRA 11:?)
(Uraninite)

RAFAL'SKIY, R.P.; DYMKOV, Yu.M.

Tubular pseudomorphoses of argentite as a substitute for native
wire silver and the temperature of their formation. Dokl. AN
SSSR 112 no.4:746-748 F '57. (MLRA 10:4)

1. Institut geologii rudnykh mestorozhdeniy, petrografii, mineralo-
gii i geokhimii Akademii nauk SSSR. Predstavлено akademikom D.S.
Korzhinskim.

(Argentite)

"The International Organization of the Atom for Peace, its Activities and
and its Effect on International Citizens" by R. A. Repoloskiy.

Report presented at 2nd UN Atoms-for-Peace Conference, Geneva, 9-13 Sept 1958

NAVAL INTELLIGENCE

21(4) PLATE I BOOK REFERENCE SOY/2773

International Conference on the Peaceful Uses of Atomic Energy. 2nd, Geneva, 1958.

(Reports of Soviet Scientists; Nuclear Fuel and Reactor Metals) Moscow, Academy, 1959. 670 p. (Series: 155; Total: 5,600 copies printed).

Mr. (Title page): A.A. Bocharov, Academician, A.P. Vinogradov, Academician, V.A. Fomichev, Corresponding Member, USSR Academy of Sciences, and A.P. Zarlin, Doctor of Technical Sciences; Tech. Ed.: K.I. Masek.

PURPOSE: This volume is intended for scientists, engineers, physicians, and biologists working in the production and peaceful application of atomic energy for medicine and industry. It is also intended for students of schools or higher technical education where the subject is taught; and for people interested in atomic science and technology.

CONTENTS: This is volume 3 of a complete set of reports on atomic energy, presented by Soviet scientists at the Second International Conference on the Peaceful Uses of Atomic Energy, held in Geneva from September 1 to 13, 1958.

Volume 3 consists of two parts. The first part, edited by A.I. Zubov, is devoted to geology, prospecting, concentration, and processing of nuclear source material. The second part, edited by G.I. Zverev, includes 27 reports on metallurgy, metallography, processing technology of nuclear fuels and reactor metals, and neutron irradiation effects on metals. The titles of the individual papers in most cases correspond word for word with those in the official English language edition on the Conference proceedings. See SOY/2001 for the titles of the other volumes of the set.

S. S. Tikhonov, Prof. Dr. Nekrasova, A.B. Serovetsky, and O.P. Shishkin, The Role of Oxygen in the Occurrence of Uranium Concentration in Sedimentary Rocks (Report No. 2059)

B. N. Vinogradov, Prof. The Experimental Investigation of the Conditions of Uranium Transport and Deposition by Hydrothermal Solutions (Report No. 2057) 55

B. N. Vinogradov, Prof. Occurrence of Uranium in Some Coal (Report No. 2052) 59

G. I. Zverev, O.S. L'vov, I.M. Balina, E.V. Geritsa, and E.M. Savil'yants, Mineralogical Types of Oxidation Zones of Hydrothermal Uranium Deposits 62

Uranium Fluoride Deposits in the USSR (Report No. 2155) 69

A. I. Zubov, I.P. L'vova, B.I. Brashly, Yu. P. Sosulin, and T. A. Dvornichenko, General Geologic Features, the Localization of Uranium Mineralization and the Ratio Types of Structures of Hydrothermal Uranium Deposits (Report No. 2052) 65

CONT 2/1

11 (7)

AUTHORS: Rafal'skiy, R. P., Kudinova, K. F. SOV/89-7-4-4/28

TITLE: The Experimental Investigation of the Conditions for the Reduction and Precipitation of Uranium by Minerals

PERIODICAL: Atomnaya energiya, 1959, Vol 7, Nr 4, pp 333-337 (USSR)

ABSTRACT: The present paper deals with the results obtained by an experimental investigation of the reduction- and precipitation processes of uranium by certain minerals which are widely spread in hydrothermal uranium deposits. For this purpose a plate of the precipitating mineral, which had a thickness of from 0.2 to 0.4 mm, was fitted into a quartz ampoule, after which several millimeters of a solution of UO_2SO_4 were introduced. The ampoule was evacuated, soldered, and heated. The uranium was precipitated with natural minerals with the exception of pyrrhotine, which was produced in the laboratory. At the increased temperatures the uranium was reduced, after which it was precipitated from the acid uranyl sulphate solutions by means of pyrite, pyrrhotine, galenite, chalcopyrite, siderite, smaltine, and native antimony (which, in its lowest valences, contains Fe, S, and As). As a result of the redox reactions,

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The Experimental Investigation of the Conditions for the SOV/89-7-4-4/28
Reduction and Precipitation of Uranium by Minerals

a vestige of UO_2 is produced on the precipitating mineral, and hematite is separated on the ampoule walls or in the mixture with UO_2 , and on the surface of the solution an emulsion of elemental sulphur is separated. The character of the UO_2 produced depends mainly on the composition of the precipitating mineral and on the temperature. The influence exercised by the composition of the precipitating mineral is in some cases particularly marked. At 150°C , a very fine-grained unit forms after 120 hours on the pyrite, in which the presence of U_3O_8 was detected by X-ray analysis. Under similar conditions, a precipitate with the crystal lattice of UO_2 was produced in galenite. At 200 to 350°C , crystalline uraninite was obtained on pyrite and galenite. The strongest influence was exercised by temperature in the case of the precipitation of uranium by siderite. A table contains data concerning the dependence of the lattice constant of UO_2 upon the conditions of production. An increase of the duration

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The Experimental Investigation of the Conditions for the SOV/89-7-4-1/28
Reduction and Precipitation of Uranium by Minerals

of the experiment from 6 to 113 hours ($T = 250^{\circ}\text{C}$) caused no qualitative changes in the character of UO_2 in its precipitation on pyrite and galenite. The following conclusions may be drawn from the results obtained: (1) At increased temperatures and pressures, U(VI) is reduced in acid solutions by iron, sulphur, and arsenic (which are present in natural minerals). Uranium is precipitated as a result of the reduction as crystalline uraninite, "collomorphous" uranium resin, or as carbonblack-like vestiges of uranium-blackening. (2) The character of UO_2 depends on the composition of the precipitating mineral which determines the interaction of the solution with the mineral. (3) The character of UO_2 depends also on temperature, at the rise of which also the lattice constant UO_2 increases. With rising temperature the reduction of U(VI) becomes ever more complete. Crystalline uraninite can, by the way, form already at 100°C , whereas uranium resin and even uranium black precipitates at 250°C . (4) In the case of a considerable velocity of the interaction between the solution and the mineral

Card 3/4

The Experimental Investigation of the Conditions for the SOV/89-7-4-4/28
Reduction and Precipitation of Uranium by Minerals

(precipitation on siderite) the character of UO_2 depends on the concentration of uranium in the original solution. The results obtained by these experiments in general confirm the possibility of the deposition of primary minerals by the reduction of U(VI) by the components of natural minerals under hydrothermal conditions. There are 2 figures, 2 tables, and 5 Soviet references.

SUBMITTED: February 18, 1959

Card 4/4

RAFAL'SKIY, R.P., KANDYKIN, Yu. M.

Experimental data on the crystallization of the uranium dioxide
under hydrothermal conditions. Geol. rud. mestorozh. no.1:98-106
(MIRA 13:7)
Ja-F '60.
(Uranium oxide)

KONSTANTINOV, M.M. [deceased]; RAFAL'SKIY, R.P.

Solubility of galenite and lead transport under conditions prevailing
near the earth's surface. Geokhimiia no.3:280-281 '60.
(MIRA 14:5)

(Galena)

RAFALSKIY, R.

New types of beryllium deposits in the U.S.A. Atom.energ. 10 no.5:
542-543 My '61. (MIRA 14:5)
(United States--Beryllium)

L 48032-65 EWT(m)/EPF(n)-2/EWP(t)/EWP(b) Pu-4 LJP(c) JD/WA/JG/DM

s/0089/65/018/002/0189/0191

ACCESSION NR: AP5005815

AUTHOR: Osipov, B. S.; Rafal'skiy, R. P.

TITLE: Some data on the equilibrium in systems $\text{MeS}(\text{MeS}_2)$ - UO_2SO_4 - H_2O at increased temperatures and pressures

SOURCE: Atomnaya energiya, v. 18, no. 2, 1965, 189-191

TOPIC TAGS: uranium, uranium ore, equilibrium concentration, temperature dependence

ABSTRACT: One of the authors (Rafal'skiy, Fiziko-khimicheskoye issledovaniye usloviy obrazovaniya uranovykh rud [Physicochemical Investigation of the Conditions for Formation of Uranium Ores], Gosatomizdat, 1963) has studied qualitatively the conditions and products of reduction of hexavalent uranium by some ore minerals, particularly pyrite and galenite. The present study was quantitative and aimed at determining the equilibrium concentrations of uranium in the presence of sulfides at temperatures 200-360°C. This study is of interest because uranium pitchblende is frequently located in mineral deposits rich in sulfides. The experimental pro-

Card 1/4

RAFALOWICZ, Jan, mgr inz.; BARANOWSKI, Paweł, mgr inż.

Problems of shifting toward the contact with the surface being
ground. Mechanik 35 no.10:547-551 O '62.

1. Pclitechnika, Łódź (for Rafalowicz). 2. Łódzkie Zakłady
Radiowe, Łódź (for Baranowski).

STEFANKO, Stanislaw; IWANOWSKI, Lech; RAFALOWSKA, Janina; SOBKOWICZ, Hanna

Apropos of circulatory disorders in the area of so-called "last-frontier" of the thalamus. Neurol., neurochir., psychiat. Pol.
15 no.1:25-30 Ja-F'65.

1. Z Kliniki Neurologicznej Akademii Medycznej w Krakowie (Kierownik: prof. dr. W. Jakimowicz) i z Kliniki Neurologicznej Akademii Medycznej w Warszawie (Kierownik: prof.dr. I. Hausmanowa-Petrusewicz).

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P/047/62/013/003/002/003
D207/D308

24/7/80

AUTHORS:

Mazur, Józef and Rafałowicz, Jerzy

TITLE:

The work of the Zakład Niskich Temperatur (Low Temperature Laboratory) on Monocrystalline whiskers

PERIODICAL:

Postępy fizyki, v. 15, no. 3, 1962, 309 - 314

TEKT:
The authors review their own work on whiskers (begun in 1958). Electric fields were found to affect materially the process of growth of copper, silver and iron whiskers prepared by Brenner's method, i.e. by reduction of halides in hydrogen. Ion pairs -- formed by dissociation or by chemical reactions -- were found in high concentrations in the halide vapors from which the whiskers were grown. The ion pairs were directed by the applied field and this affected the growth process. The authors suggest also that one should use the temperature gradient of the relative vapor pressure when considering the mechanism of whisker growth by condensation of pure metal vapors. The electrical resistivity of monocrystalline copper whiskers at -195°C was

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Card 1/2

The work of the Zakład Niskich ...

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only half the resistivity of polycrystalline copper wires of the same diameter; this indicates the higher perfection of the crystal structure of the whiskers. Cu₂O was found to form faster on copper wires than on whiskers because the surface of the whiskers was more perfect in structure. These studies are being continued.

ASSOCIATION: Zakład niskich temperatur, Instytut fizyki PAN Wrocław
(Low Temperature Laboratory , Institute of Physics, PAS
Wrocław)

Card 2/2

MAZUR, J.; RAFALOWICZ, J.

On the possibility of foresight of the whiskers growth conditions from metal vapor pressure in the formed temperature gradient. Acta physica Pol 21 no.4:365-370 Ap '62.

1. Low Temperature Laboratory, Institute of Physics, Polish Academy of Sciences, Wroclaw, and Department of Experimental Physics, University, Wroclaw.

RAFALOWICZ, J.; SUJAK, B.

Characteristics of standard carbon resistors at helium temperatures and their dependence on the measuring current intensity.
Acta physica Pol 25 no.2:193-203 F '64

1. Low Temperatures Laboratory, Institute of Physics, Polish Academy of Sciences, Wroclaw.

ACCESSION NR: AP4040362

P/0045/64/025/003/0427/0436

AUTHOR: Rafalowicz, J.

TITLE: A method for measuring the thermal conductivity of semiconductors in the helium II temperature range, as applied to graphite

SOURCE: Acta physica polonica, v. 25, no. 3, 1964, 427-436

TOPIC TAGS: semiconductor, graphite, thermal conductivity, helium bath temperature

ABSTRACT: A procedure for measuring the thermal conductivity of cylindrical semiconductor specimens immersed directly in a helium bath below the lamda point is proposed. A method is given by which all the quantities appearing in the following equation can be found

$$K(T) = \frac{Q}{4\pi\ell(T_0 - T_g)}$$

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ACCESSION NR: AP4040362

where Q is the Joule heat produced in the entire specimen; l the length of the specimen; T_0 the temperature on the axis of the cylindrical specimen; T_s the surface temperature of the specimen. The measured thermal conductivity of the five carbon resistors (thermometers) versus the proposed method was found to be in good agreement with the results obtained by other workers who used traditional methods. A relatively simple procedure is given for determining the temperature jump on the surface of a current-loaded graphite specimen immersed in a bath of helium I. The author claims this method eliminates the use of adhesives, thus permitting one to avoid contamination of the specimen. The author thanked Dr. B. Sufak for discussions and Dr. B. Makiej for reviewing the paper. Orig. art. has: 8 figures.

ASSOCIATION: Zaklad Niskich Temperatur Instytutu Fizyki PAN, Wroclaw (Low Temperature Laboratory, Institute of Physics of the Polish Academy of Sciences)

SUBMITTED: 20Sep63 DATE ACQ: 15May64 ENCL: 00

SUB CODE: EC NO REF SOV: 003 OTHER: 011

Card 2/2

RAFALOWICZ, J.; SUJAK, B.

Calibration formulas of standard carbon resistor thermometers
for the helium temperature range. Acta physica Pol 25 no. 4:
599-608 Ap '64.

1. Low Temperature Laboratory, Institute of Physics, Polish
Academy of Sciences, Wroclaw.

POLAND

RAFALOWICZ, Jerzy

Low Temperature Laboratory, Institute of Physics, Polish
Academy of Sciences (Zaklad Niskich Temperatur Instytutu
Fizyki PAN), Wroclaw

Crakow, Postepy Fizyki, No 5, Sept-Oct 1965, pp 603-16

"Carbon resistors in low-temperature thermometry."

2 45178-66 EWP(t)/ETI IJP(c) JD/WW
ACC NR: AP6026995 SOURCE CODE: PO/0045/66/029/005/0631/0641

25
B

AUTHOR: Rafalowicz, J.; Pega, E.; Sujak, B.

ORG: [Rafalowicz] Low Temperature Laboratory, Institute of Physics, Polish Academy of Sciences, Wroclaw (Zaklad Niskich Temperatur Instytutu Fizyki PAN); [Pega; Sujak] Institute of Experimental Physics, Wroclaw University, Wroclaw (Katedra Fizyki Doswiadczałnej Uniwersytetu Wroclawskiego)

TITLE: On the temperature jump between the surface of an overheated thermometric carbon resistor and helium-I bath

SOURCE: Acta physica polonica, v. 29, no. 5, 1966, 631-641

TOPIC TAGS: helium bath, carbon resistor

ABSTRACT: Starting with the radial distribution function of temperature for a volume-heated solid cylinder, a formula was derived for the effective temperature jump between the surface of an overheated specimen and the helium-I bath

$$\Delta T = (T_{\text{eff}} - T_{\text{HeI}}) - \frac{Q}{4\pi l a T_{\text{eff}}^n}$$

Card 1/2

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ACC NR: AP6026995

All quantities appearing in this formula for the temperature jump can be determined experimentally. This made it possible to find the relation between the temperature jump and the power produced in the specimen. A study was suggested of the temperature jump at the surface of overheated cylindric semiconductor specimens by the method based on measurements of the effective temperature of the specimen, the temperature of the helium bath, and the power produced in the specimen, with a graphic determination of the specimen's effective thermal conductivity as a function of its effective temperature. For heat-flux densities over $300 \mu\text{W/cm}^2$ indications were found of a "bubble" convection-type mechanism (occurring in jumps) for the removal of heat from the surface of the superheated specimen into the helium-I bath. Orig. art. has: 6 figures and 12 formulas. [Based on authors' abstract]

[KS]

SUB CODE: 20/ SUBM DATE: 02Aug65/ ORIG REF: 003/ SOV REF: 001/
OTH REF: 007/

Card 2/2 *plw*

ACC NR: AP7003278

PO/0045/66/030/006/1053/1055

AUTHOR: Rafalowicz, J.; Pega, E.; Sujak, B.

ORG: [Rafalowicz] Low Temperature Laboratory, Institute of Physics, PAN, Wroclaw (Zyklad Niskich Temperatur, Instytut Fizyki PAN); [Pega, Sujak] Chair of Experimental Physics, Wroclaw University, Wroclaw (Katedra Fizyki Doswiadczonej, Uniwersytet Wroclawski)

TITLE: On the possibility of the use of technical polycrystalline silicon in low-temperature thermometry (helium temperatures)

SOURCE: Acta physica polonica, v. 30, no. 6, 1966, 1053-1055

TOPIC TAGS: thermometry, low temperature research, silicon, polycrystalline silicon, resistance thermometer, temperature dependence, electric resistance

ABSTRACT: The temperature dependence of the electrical resistance of commercially pure silicon was measured at 4.22—1.8K to study the feasibility of constructing silicon thermometers for this region. Resistance as a function of the temperature for a silicon sample is given in Fig. 1. The samples were calibrated by immersion in a liquid helium bath and temperature was controlled with better than 0.01K accuracy by pumping off helium gas. The experimental function $R(T)$ can be approximated by

$$R = R_0 \cdot e^{\frac{B}{T}} \quad (1)$$

Card 1/3

ACC NR: AP7003278

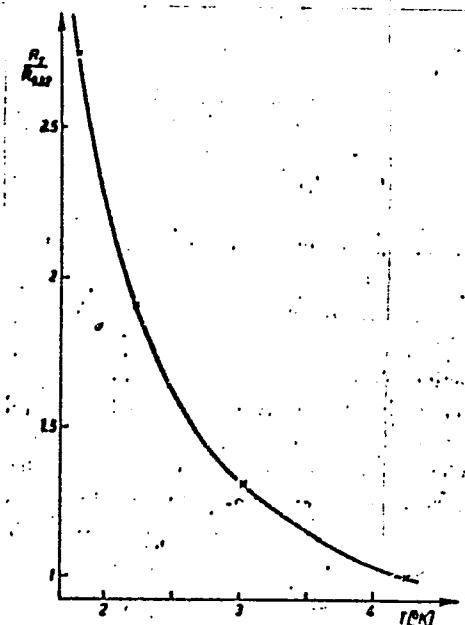


Figure 1. Relative resistance of a silicon sample versus temperature. (R_T is the resistance at the temperature T , $R_{4.22}$ — the resistance of the boiling point of helium)

Card 2/3

ACC NR: AP7003278

β being approximately constant between 3K and 1.8K and decreasing between 3 and 4.2K. Extrapolation of the calibration curve indicated the possibility of using the silicon thermometer to 0.6K, where resistance would reach the order of 10^4 ohms. Orig. art. has: 1 figure and 1 formula. [26]

SUB CODE: 2014/ SUBM DATE: 23Jun66/ ORIG REF: 002/ OTH REF: 004/ SOV REF: 003
ATD PRESS: 5114

Card 3/3

RAFALOWICZ, Z.

Two theories, two methods. p. 290.

Vol. 28, no. 9, Sept. 1955

PRZEGLAD TELEKOMUNIKACYJNY. Warszawa.

SOURCE: East European Accessions List (EEAL), LC, Vol. 5, no. 3, March 1956

RAFALOWICZ, Z.

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- ✓710. TWO THEORIES — TWO METHODS. Z. Rafalowicz.
Przeglad telekom., 1958, No. 9, 290-8. In Polish.
Deals, on the basis of research, with the problem of planning
and determining the future development of urban means of tele-
communication. Two methods of determination are discussed and
a theoretical generalization of the problem is attempted.
Polish Technical Abstracts

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"APPROVED FOR RELEASE: 03/20/2001

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APPROVED FOR RELEASE: 03/20/2001

CIA-RDP86-00513R001344010012-5"

LOTEK, Z.

"Economic basis for Planning and Designing Communications", p. 37, (PRZEGIAD
TELECOMUNIKACYJNY, Vol. 25, No. 2, Feb. 1955, Warszawa, Poland)

SC: Monthly List of East European Accessions, (EMAL), LC, Vol. 4, No. 5, May
1955, Uncl.

17

CA

Comparison of various methods for the detection of impurities in anesthetic ether. H. Rafalska. Roczniki Poddzialnego Zakladu Hig. 1, 311-22 (1950).—It was found that the Nessler reagent was the most sensitive reagent for the detection of aldehyde and ketone impurities in tech. grade of ether having a sensitivity of 1:10⁴. The detection of acetone by means of the nitroprusside reaction was found to be too insensitive for practical use because it had a sensitivity of only 1:10⁵. L. J. Piotrowski

Chemical Abstracts

CATEGORY :

ABS. JOUR. : AZKhia., No. 16 1959, No.

58099

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APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R001344010012-5"

Method of Rapid Colorimetric Test in the Separation of Sulfamides in Medicinal Preparations

ORIG. PUB. : Chem Analit, 2, No 4, 366-375 (1958)

ABSTRACT : The authors have developed new methods for the determination of sulfamides in therapeutic preparations, based on the use of mixtures of n-butanol + 1m. NH₄OH (100 : 30) and n-butanol + water (100 : 19) as solvents. The compositions of the preparations investigated are listed. The method [sic] developed makes it possible to detect impurities in sulfamate preparations, e.g., the presence of sulfathiazole in analgesic preparations.

From authors' summary

CARD: 1/1 * Poprocka, B.

MICROGRAPHY, PRINTING & TYPE by JANINA POMAZANSKA, Editor, Author

Preparation of mixtures of phenothiazine derivatives with the thin-layer chromatographic method. I. *Anal. Chem.* **21**, no. 1, p. 5-14.

1. 4 Zeskiad Chemiczno-Analitycznej Instytutu Chemii Akademii Ścisłej
(Kierowcy k. ds., mpr Inż. A. Mergasinska).

APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R001344010012-5"

RAFALOWSKA, H.

2

✓ 672. Application of micro-crystallographic methods to the detection of certain derivatives of nicotinic acid in medicinal preparations. Z. Margasinski and H. Rafalowska (Zaklad Chem. Inst. Leków, Warszaw). *Z. z. Chem.*, 1955, 11, 760-702.—A micro-crystallographic method based on the complex formation of the amide, diethylamide and hydroxymethylamide of nicotinic acid with certain compounds of copper, mercury and bismuth has been developed for their detection. The complexes have distinctive crystalline forms and are suitable for the differentiation of the above substances. The reagents used are CuSO_4 , NH_4SCN , Mayer's and Dragendorff's reagents. The crystals formed are illustrated.

K. F. SPOREK

CA

17

Identification and determination of barbituric acid derivs. Halina Rafalowska (P.Z.H., Warsaw, Poland). *Koznicki Państwowy Zakładu Hig.*, 2, 220-40 (1951). - Known methods, encountered in the scientific literature and in various pharmacopelias, are tested and modified when necessary to give a set of reactions for the detn. and identification of the barbituric acid derivs. Thus, it was found that the red-purple complexes formed by barbituric acid derivs. with Co and piperidine are a non-specific test, as the test is also given by salicylic and acetylsalicylic acids. Some color reactions of individual barbituric acid derivs. give different results than reported in the literature. Reaction of 5-(1-cyclohexen-1-yl)-1,5-dimethylbarbituric acid (I) with resorcinol (G. R. Turfitt, *Quart. J. Pharm. Pharmacol.* 20, 109 (1947)) produces a yellow color in alk. soln. in daylight (literature: wine red) and 5,5-diallylbarbituric acid (II) produces gray-green in acid medium (literature: light green); I and vanillin (III) do not produce the described green color on heating with acid. II and III on addn. of EtOH give a purple, not blue-green color. In the reaction of barbituric acid derivs. with III color changes take place too quickly for accurate observations if the samples are larger than 0.01 mg; if the samples are smaller than 0.005 mg. compds. reported as forming a strong blue color give a purple color instead. Paper chromatography of barbituric acid derivs. with 70% EtOH gives R_f values of 0.85, 0.80, 0.81, and 0.83 for the Na salts of luminal, I, veronal, and amytal, resp. The barbituric acid derivs. are developed on the paper by using alc. Hg salts of diphenylcarbazone (IV) i.e. 5 ml. 1% alc. IV, 1 ml. 5% $HgCl_2$, and 0.25 ml. 30% HOAc are add. to 30 ml. with EtOH.

I. Z. Roberts

WARECKA, Krystyna; RAFALOWSKA, Janina

Degenerative changes in the cervical spine in multiple sclerosis patients. *Neurochir., Psychiat.* Pol. 15 no.1:55-58 Ja-F'65.

1. Z Kliniki Neurologicznej Akademii Medycznej w Warszawie (Kierownik: prof. dr. med. I. Hausmanowa-Petrusewicz).

RAFALOWSKA, Janina; WARECKA, Krystyna

Epileptic seizures in the course of multiple sclerosis. Neurologia etc.,
polska 12 no.3:317-323 '62.

1. Z Kliniki Neurologicznej AM w Warszawie Kierownik Kliniki: prof.
dr med. I. Hausmanowa-Petrusewicz.
(EPILEPSY) (MULTIPLE SCLEROSIS)

WARECKA, Krystyna; RAFALOWSKA, Janina

On the connection of disseminated sclerosis with so-called abiotrophy
of the nervous system. Neurol neurochir psych 12 no.2:211-214 Mr-Ap
'62.

1. Klinika Neurologiczna, Akademia Medyczna, Warszawa, Oczki 6.
Kierownik: prof. dr med. I. Hausmanowa-Petrusewicz.

RAFALOWSKA, Janina; WAPECKA, Krystyna

Epileptic crises in the course of disseminated sclerosis. Neurol
neurochir psych 12 no.3:317-323 My-Je '62.

1. Klinika Neurologiczna, Akademia Medyczna, Warszawa (Kierownik: prof.
dr med. I. Hausmanowa-Petrusewicz).

MALOMSKA, Janina; WARLOKA, Krystyna

The problem of familial disseminated sclerosis. Neurologia etc.
polska 11 no.6:793-801 '61.

I. Z Kliniki Neurologicznej AM w Warszawie Kier. prof. dr med.:
I. Rausmanowa-Petrusewicz.
(MULTIPLE SCLEROSIS genetics)

JEDRZEJOWSKA, Hanna; RAFALOWSKA, Janina; WARECKA, Krystyna

Cases of distinct bone changes in syringomyelia. Polski tygod.
lek. 15 no.21:798-800 23 My '60.

1. Z Kliniki Chorob Nerwowych A.M. w Warszawie; kierownik: prof.
dr med Irena Hausmanowa-Petrusewicz.
(SYRINGOMYELIA pathol)
(BONE AND BONES pathol)

RAFALOWSKA, Janina; WARECKA, Krystyna

Attempted evaluation of annual activities of a clinic for multiple sclerosis patients of the A.M.Klinika Neurologiczna in Warsaw.
Polski tygod. lek. 15 no.28:1079-1081 11 Jl '60.

1. Z Kliniki Neurologicznej A.M. w Warszawie; kierownik: prof.
dr med. I.Hausmanowa-Petrusewicz
(MULTIPLE SCLEROSIS hosp & clin)

RAFALOWSKA, Janina; HAUSMANOWA-PETRUSEWICZ, Irena

Neurological complications in boxing. Polski tygod.lek. 14
no.50:2177-2181 D '59.

1. Z Kliniki Chorob Nerwowych A. M. w Warszawie; p.o. kierownika:
prof. dr Irena Hausmanowa-Petrusewicz.
(BOXING wds & inj)
(BRAIN wds & inj)

RAFAL'SKAYA, Ye.

"Deine Gesundheit" ["Your health"]. Reviewed by K.Rafal'skaya.
Zdorov'e 3 no.1:28-29 Ja '57. (MIRA 10:2)
(GERMANY--PUBLIC HEALTH--PERIODICALS)

RAFALCZYK, H., and others

Paper chromatography used for the separation of sulfonamides in medicinal preparations.

p. 366. (CHEMIA ANALITCZNA) (Warszawa, Poland) Vol 2, No. 4, 1957

SO: Monthly Index of East European Accession (EEAI) LC Vol. 7, No. 5, 1958

RAFALOWSKA, Janina; SOBKOWICZ, Hanna

Neurological syndromes during the course of pulmonary cancer.
Neur. &c. polska 10 no.1:61-71 Ja-F '60.

l.Z Kliniki Neurologicznej A.M. w Warszawie, p.o. kierownika:
prof. dr med. I. Hausmanowa-Petrusewicz.
(LUNG NEOPLASMS compl.)
(NEUROLOGICAL MANIFESTATIONS)

WAŁĘCKA, Krystyna; RAFALOWSKA, Janina

On the problem of convulsive seizures in multiple sclerosis.
Neurol. etc., polska 11 no.4:569-574 '61.

1. Klinika Neurologiczna AM w Warszawie Kierownik: prof. dr
I. Hausmanowa-Petrusewicz.
(MULTIFILE SCLEROSIS compl) (CONVULSIONS)

ALFRED WILHELM, L.: POLSKA MUSICA, L.: WILHELM, F.

Frequency of occurrence of particular masses of air in Poland. No. 157
Vol. 1, no. 4, 1956. WYDANIE GOSCIENSTOWEJ POLSKIEJ AKADEMII NAUK J. Warszawa, Poland.

See: Eastern European accession. Vol 5, no. 4, April 1956

4.6-56

Rafalowski, Stanislaw, Jak powstaje prognoza meteorologiczna (pogody). [How are synoptic weather forecasts made?] *Gazeta Obronytora PZHM*, Warsaw, 3(9);8-10, Sept. 1950. fig., synoptic chart. DLC: The techniques of weather forecasting, from start to finish, are explained in a concise manner. *Subject Headings:* 1. Synoptic forecasting 2. Poland.

A.M.P.

551.509.31

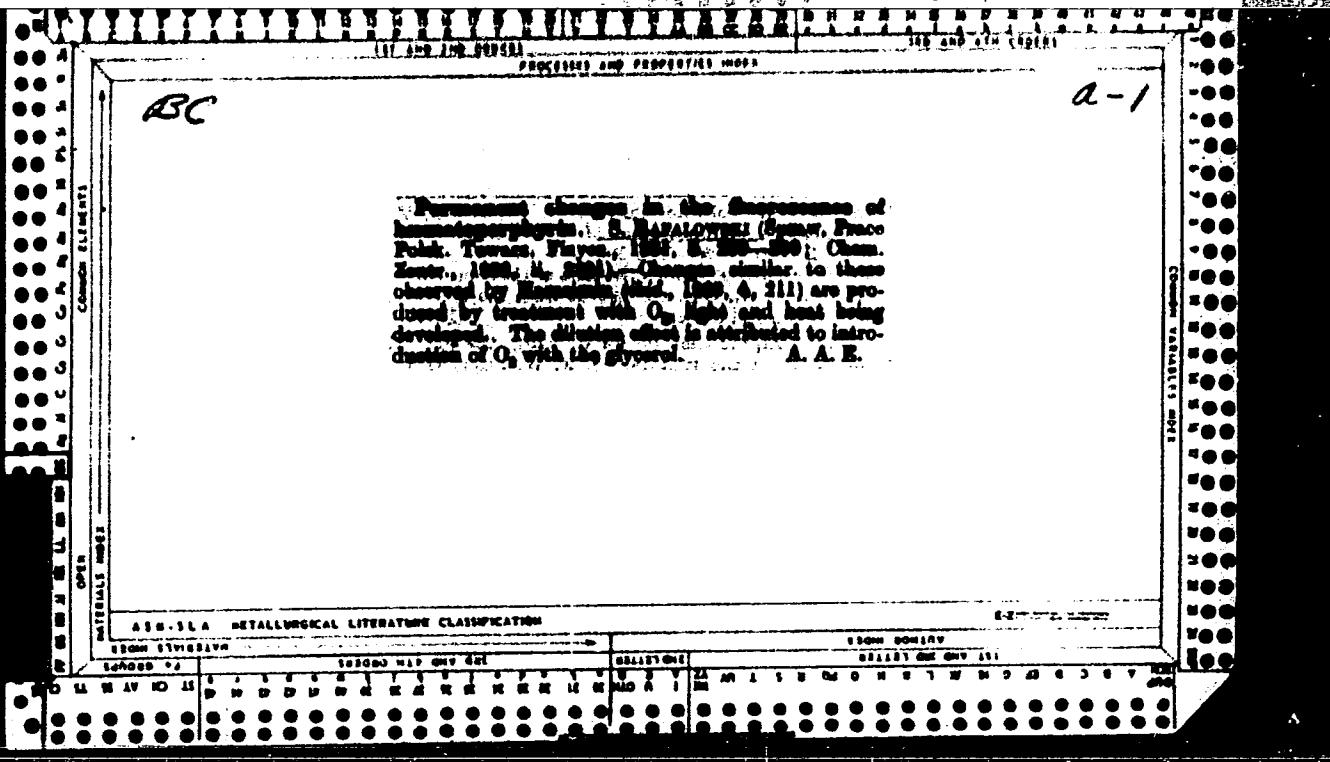
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1.6-56

Rafalowski, Stanislaw, Jak powstaje prognoza meteorologiczna (pogody). [How are
mete weather forecasts made?] *Gazeta Observatora PHM*, Warsaw, 3(9):8-10, Sept.
1950. fig., synoptic chart. *DLC* "The techniques of weather forecasting, from start to
finish, are explained in a concise manner. *Subject Headings:* 1. Synoptic forecasting. 2. Poland.
3. M.P.

SSI.S09.31

HV
JL



Fine structure of spectral lines of light scattered by liquids. B. KARATOWSKI (*Nature* 126, 405 (1931)).—The fine structure of the lines scattered by liquids was studied by passing light from a ring-shaped Hg arc through a liquid in a container inside. The scattered light was passed from a monochromator to a Lummer-Gehrecke plate. With Cellophane no new line was found similar to that from Cello. The optical arrangement does not affect the spectrum noticeably. B. T. ROSENBLUM

APPROVED FOR RELEASE: 03/20/2001

CIA-RDP86-00513R001344010012-5"

Raman bands of water. STANISLAW RAFAŁOWSKI. *Bull. intern. acad. Polonaise* 1931A, 623-8 (in English); cf. *C. A.* 26, 376. —With a HCl soln. the outer components of a band disappear with increasing concn. while the middle component is broadened, contrary to the statement of Rao (*C. A.* 25, 2032) who found that an increase of the concn. of an electrolyte causes an increase of the sharpness of the bands. The broadening of the rays diffused by HCl without a change in the wave length has an asymmetric character.

J. WIERZBIAK

ASA 515 METALLURGICAL LITERATURE CLASSIFICATION

A 53 J

2868. Raman Bands of Water. S. Rafalowski. *Acta Polonica Soc. of Letters, Bull. 7* 104, pp. 623-628, July-Dec., 1931. In English.—The Raman bands of water are observed using a ring-shaped mercury arc surrounding the tube, so placed that light entered the sides of the tube in a direction away from the spectroscope, so that unscattered light should be lost in the usual horn-shaped end of the tube. In this way the background of the plates obtained was very clear. Results are reported for the bands of water scattered in pure water, solutions of HCl and of HNO₃ of various concentrations. In the case of the HCl solution, the bands of water became less sharp as the concentration increased, while those of HNO₃ became sharper. The bands observed are believed to be triple, and not double, as reported by some observers. Microphotometer records are included in support of the contentions put forward. A.C.M.

Nuclear moments of tellurium and selenium isotopes
S. Rafalski, *Acta Phys. Polonica* 2, 119-123 (1953) (in German). — R. tested the hyperfine structure of the arc spectra of Te and Se, as produced in an evacuated quartz tube in the presence of 1-2 mm. of He and excited by

means of about 1000 v. a. c. In such conditions the metal tested evap. quickly, producing in a short time in addn. to the He spectrum the arc spectrum of the metal of the same intensity. With Se both the arc and the band spectra are visible. The latter is not found with Te. Expts. with S showed that the band spectrum is very strong and does not permit other investigations. The interference is measured by means of a Lummer-Gehrecke quartz plate. The strongest lines in the Te spectrum are: 2709.03 ($5^1D_4 - 6^1S_1$), 2580.73 ($5^1P_1 - 6^1S_1$), 2345.78 ($5^1P_1 - 6^1S_1$), 2383.24 ($5^3P_1 - 6^1S_1$), 2259.02 ($6^1P_1 - 6^1S_1$) Å. All analyzed spectral lines are simple. This simplicity of the lines permits the conclusion that even-numbered isotopes of Te and Se have nuclear moments of the value 0 and show, similarly to other medium-heavy elements, no elec. shifting of the lines. J. Wiertlak

RAFALOWSKI, S.

SCIENCE

Periodical: GAZETA OBSERWATORA. P.I.H.M. Vol. 11, no. 6, June 1958.

RAFALOWSKI, S. Tornadoes at Rawa Mazowiecka and Nowe Miasto, May 1958.
p. 7.

Monthly List of East European Acquisitions (EEAI), LC, Vol. 8, No. 3, May 1959
Unclass.

RAFALOWSKI, S.

Problems in the meteorologic forecast of floods, p. 53. (PRZEGLAD METEOROLICZNY I HYDROLOGICZNY, Warszawa, Vol. 6, no. 3/4, 1953.)

SC: Monthly List of East European Accessions, (EEAI), LC, Vol. 4, No. 6, Jun. 1955, Uncl.

RECORDED,

"...any other factors involved in the occurrence of flight."
Senate Document No. 117, "Mirzakh, Vol. 1," p. 163, p.

10: Russia to my via Aeronautics Unit, Vol. 1, No. 10, Sec. 103, Ltr. of Congress

Rafałowski, S.

2
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J. Rafałowski, Stanisław. Problemy meteorologicznej prognozy powodzi. [The problems of the meteorological forecasting of floods]. "Przegląd Meteorologiczny i Hydrologiczny", Warsaw, 6(3/4):53-61, 1953. 2 figs. DWB—Methods of forecasting floods vary in dependence on the type of floods which are to be forecast. The author proposes a classification of floods based on the differentiation of causes, discusses the dynamics of and the meteorological conditions favoring their development and outlines the methods of forecasting them. He discusses: 1. Floods caused by the formation of ice blockings on rivers; 2. Floods connected with storms on the sea coast, mainly in river mouths; 3. Floods caused by exceptionally abundant rains and 4. Floods connected with rapid melting of the snow cover. In all above mentioned cases the details of variation of individual processes can be analyzed only in the context of an accurate general long-range forecast. Besides that, almost all phenomena require a close analysis in regard to concrete local conditions. Subject Headings: 1. Flood forecasting 2. Flood classification. — I.M.P.

EE any

RAFALOWSKI, Stanislaw

23 March, 1961 - the First World Meteorological Day. Przegl. geofiz.
6 no.1/2:3-4 '61.

1. Państwowy Instytut Hydrograficzno-Meteorologiczny, Warszawa.

RAFALOVSKIY, V.A. [Rafalovs'kyi, V.A.]; TREFILOV, V.I.

Magnitude of coupling forces in ω -phases. Ukr. fiz. zhur. 9
no.11:1270-1271 N '64 (MIRA 18:1)

1. Institut metallofiziki Akad. UkrSSR, Kiyev.

ACC NRI A-6014580 (A,N)

SOURCE CODE: UR/0137/65/000/013/D043/D044

AUTHORS: Gridnev, V. N.; Chernenko, N. P.; Rafailovskiy, V. A.

TITLE: Mechanical properties of titanium alloys after cold deformation

JOURNAL: ref. zh. Metallurgiya, Abs. 11D304

PUB. LOC.: Sb. Stal'n. kach'tv. Vyp. 2. Kiyev, Tekhnika, 1965, 405-409

TOPIC TACO: titanium alloy, wire, plasticity, material deformation, annealing,

cold drawing

ABSTRACT: The mechanical properties of cold drawn wire of previously vacuum annealed commercial Ti alloy specimens were investigated. It was found that preliminary vacuum annealing does not yield an optimum combination of strength and plasticity of cold drawn wire. A preliminary electrothermal treatment did yield wire of satisfactory strength and plasticity after cold drawing. The effectiveness of application of electrothermal treatment in obtaining wire of high mechanical properties was corroborated. A. Leont'yev [Translation of abstract]

SUB. CODE: 11, 13, 20

UDC: 621.771.3.001

RAFALSKA, H.

Structure of leaves of *Datura innoxia* Mill. (erroneously classified as *Datura metel* L.). *Acta Poloniae pharm.* 11 Suppl.:106-107 1955.

1. Zadlad Botaniki Farmaceutycznej Akademii Medycznej., Poznan.
(*Datura*,
innoxia, anat.)

PETRISHCHEVA, Polina Andreyevna, prof.; RAFAL'SKAYA, Ye.B., red.;
STAROSTENKOVA, M.M., red.izd-va; SAVCHENKO, Ye.V., tekhn.red.

[How diseases of wild animals become diseases of man] Kak
bolezni dikikh zhivotnykh stanoviatsia bolezniami cheloveka.
Moskva, Izd-vo "Znanie," 1959. 31 p. (Vsesoiuznoe obshchestvo
po rasprostraneniiu politicheskikh i nauchnykh znanii. Ser.8.
Biologiya i meditsina, no.14) (MIRA 12:9)

1. Chlen-korrespondent Akademii meditsinskikh nauk SSSR (for
Petrishcheva).
(ANIMALS AS CARRIERS OF DISEASE)

RAFAL'SKAYA, Ye.

Green city. Zdorov'e 2 no.10;25-26 0 '56.
(STALINOGORSK--LANDSCAPE GARDENING)

(MLB 9:11)

RAFAL'SKAYA, Ye.

Potatoes. Zdorov'e 3 no.5:21-24 My '57.
(POTATOES)

(MLRA 10:6)

"APPROVED FOR RELEASE: 03/20/2001

CIA-RDP86-00513R001344010012-5

RAFAL'SKAYA, Ye.

Medicine for all. Zdorov'e 3 no.10:9-10 0 '57.
(HEALTH EDUCATION)

(MIRA 10:11)

APPROVED FOR RELEASE: 03/20/2001

CIA-RDP86-00513R001344010012-5"

STANKOV, Anatoliy Govrilovich; RAFAL'SKAYA, Ye.B., red.; BUL'DYAYEV,
N.A., tekhn.red.

[Health and longevity] Zdorov'e i dolgoletie. Moskva, Gos.
izd-vo med.lit-ry Medgiz, 1960. 190 p.

(MIRA 14:2)

(HYGIENE)

(LONGEVITY)

RAFAL'SKAYA, Ye.B.

Here they study blood. Zdorov'e 7 no. 2:20-22 F '61.

(MIRA 14:2)

(BLOOD—EXAMINATION)

RAFAL'SKAYA, Ye.

On the heels of our hero. Zdercov'e 8 no.3:25 Mr '62. (MIRA 15:4)
(GUBANOV, NIKOLAI MIKHAILOVICH)

PETRISHCHEVA, Polina Andreyevna, prof.; FEDULOV, S.G. [Fedulov, S.H.],
translator; RAFAL'S'KA, Ye.B. [Rafal's'ka, IE.B.], red.

[How diseases of wild animals become human diseases] IAk khvoroby
dykykh tvaryn staiut' khvorobamy liudyny. Kyiv, 1959. 32 p.
(Tovarystvo dlia poshyrennia politychnykh i naukovykh znan' Ukrains'koi RSR. Ser.5, no.14) (MIRA 13:2)

1. Chlen-korrespondent Akademii meditsinskikh nauk SSSR (for Petrishcheva).
(Animals as carriers of disease)

RAFALSKI, H., Dr; SEREJSKI, J., Dr; SOKOLOWSKA, M., Dr

Social-educational camps as a new form of educational, scientific
and medical work in the country. Zdrowie pub., Warsz. no.1:72-80
Jan-Feb 55.

(EDUCATION, MEDICAL,
in Poland, social education camps in country, new form
of educ. & soc. work)

(HEALTH, education,
in Poland, rural areas, soc. & educ. camps of med. schools)

DOLINSKA-SZEJNFELD, Maria; RAFALSKI, Henryk

General observation on health of children in the rural area Z.
Pediatria Polska 30 no.10:975-984 Oct.'55.

1. Z II Kliniki Chorob Dzieci A M w Lodzi Kierownik: prof. dr.
med. Fr. Redlich. Lodz, Armii Czdwonej 15.

(RURAL CONDITIONS,

health of child. in Poland)

(PUBLIC HEALTH, statistics,

in Poland, health of child. in rural areas)

BROZIK, Henryka; RAFAILSKI, Henryk

Several data on rheumatic disease among children in rural areas. Pediat.
polska 32 no.7:783-796 July 58.

1. Z I Kliniki Chorob Dzieci A. M. w Lodzi Kierownik: doc. dr med.
E. Wilkoszewski i Z Zakladu Higieny Ogolnej i Spolecznej A. M. w Lodzi.
Kierownik: doc. dr med. J. Mofer. Adres: Lodz, ul. Armii Czerwonej 15.
(RHEUMATIC FEVER, statist.
in rural areas in child. (Pol))

RAFALSKI, Henryk

Vitamin D deficiency among children from urban and rural areas according to physical and radiological studies and according to tests for alkaline phosphatase in the blood serum. Pediat. pol. 37 no.4:369-392 Ap '62.

1. Z Katedry i Zakladu Higieny Ogolnej i Spolecznej AM w Lodzi Kierownik:
doc. dr med. J. Nofer.

(RICKETS statist) (PHOSPHATASES blood)
(ENVIRONMENT) (RURAL HEALTH)

RAFALSKI, Henryk

Feeding of rural infants. Pediat. pol. 37 no.12:1349-1357 D '62.

1. Z Zakladu Higieny Ogolnej i Spolecznej AM w Lodzi Dyrektor: doc. dr med. J. Nofer i z Instytutu Matki i Dziecka w Warszawie Dyrektor: prof. dr med. B. Gornicki.

(INFANT NUTRITION)

RAFALSKI, Henryk, dr med.; NOGAL, Edward

Short method of indirect calculation of nitrogen in the body of
a rat as applied in studies on protein assimilation. Pt.1.
Roczn panst zakl hig 15 no.3:257-266 '64.

1. Department and Institute of General and Social Hygiene, School
of Medicine, Lodz. Acting head: [dr med.] H.Rafalski.

POLAND/Chemical Technology. Chemical Products and Their
Applications. Chemical Wood Products. Hydrolysis
Industry.

II

Abs Jour: Ref Zhur-Khim., № 8, 1959, 29058.

Author : Rafalski, J.

Inst :

Title : The Drying of Wood in Petrolatum..

Orig Pub: Przysyl Drzewny, 2, № 8, 23-25 (1958) (in Polish)

Abstract: The author discusses problems connected with high-temperature drying in general and in particular the new automatic dryers produced in Germany in which the drying is carried out with superheated steam at 110-125°. In the USSR and in the USA drying in solutions of organic solvents is practised on a

Card : 1/2

POPIELARZ, Edmund; RAFALSKI, Jozef

Critical evaluation of the wood drying method in toluene vapors. Inst techn drew 8 no.4:55-77 '62.

1. Zaklad Higrotermicznej Obrobki Drewna.

POLAND/Chemical Technology - Electro-Chemical Industries,
Electroplating, Chemical Current Source.

H.

Abs Jour : Ref Zhur - Khimiya, No 16, 1958, 54598
Author : Mints, Rafal'sky, Bzhesky
Inst : -
Title : Preparation of Thorium Metal in a Compact State by the
Electrolysis of Melted Salts.
Orig Pub : Roczn. Chem., 1957, 31, No 2, 741-742

Abstract : Thorium metal was prepared in a compact state by the
electrolysis of a melted mixture of Th, Zn and Ca salts.
The electrolysis was conducted in Argon atmosphere at
1000-1200°C, and $D_k = 300-800 \text{ a/s m}^2$, with a Mo- cathode.
The metal obtained contains 94.4% of Thorium, traces of
zinc, and other impurities.

Card 1/1

45197-66 MAP(w) IIE(c) FM
ACC NR: AP6027453

SOURCE CODE: PO/0033/66/018/002/0151/0163

27
B

AUTHOR: Rafalski, P.

ORG: Institute of Nuclear Research, PAN, Swierk, near Warsaw (Institut badan jadrowych PAN Swierk K. Warszawy)

TITLE: Three steady-state two-dimensional problems of thermoelasticity in regions with cylindrical holes 26

SOURCE: Archiwum mechaniki stosowanej, v. 18, no. 2, 1966, 151-163

TOPIC TAGS: thermoelasticity, steady state problem, two dimensional problem, infinite cylinder

ABSTRACT: The following three steady state two dimensional problems of thermoelasticity were solved: a) the problem of a semi-infinite wall having a circular coolant hole, b) the problem of an infinite cylinder having a circular coolant hole, and c) the problem of an infinite wall having two circular coolant holes. The two-dimensional state of strain is analyzed. The temperature and stress distributions are determined for the case when temperature and pressure are applied to the

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L 45192-66
ACC NR: AP6027453

boundaries of the body being examined. The results are presented in the closed form and are shown in diagrams. Orig. art. has: 10 figures and 44 formulas.
[Based on author's abstract] [NT]

SUB CODE: 13/ SUBM DATE: 15Jul65/ SOV REF: 001/ OTH REF: 002/

Card 2/2 *pla*

REF ID: A6511

Urządzenia elektryczne wagonów tramwajowych (Electric street car installations), by W. Rafalski. Reported in New Books, (Nowe Ksiazki), No. 6, March 15, 1956.

"APPROVED FOR RELEASE: 03/20/2001

CIA-RDP86-00513R001344010012-5

RAPAL'KIV, A.K., aspirant

Lima-bean pod borer in the southern Ukraine, (French, text. of
vred. i bol. 9 no. 626-17 '62) (MIRA 173)

APPROVED FOR RELEASE: 03/20/2001

CIA-RDP86-00513R001344010012-5"

RAFAL'SKIY, A.V.

The UGT-8 pipe bending unit. Biul.tekh.-ekon.inform. no.5:19-20 '60.
(MIRA 14:3)

(Pipe bending)

RAFAL'SKIY, A. V., inzh.

New rigs for horizontal boring. Stroi. i dor. mashinostr. 5
no.8:24-26 Ag '60. (MIRA 13:8)
(Boring machinery)

BENDLER, A.I., inzh.; RAFAL'SKIY, A.V., inzh.

The UGR2 installation for horizontal drilling. Stroi.truboprov.
5 no.1:27-29 Ja '60. (MIRA 13:8)
(Gas, Natural--Pipelines)
(Boring machinery)

14(9)

SOV/95-59-3-13/14

AUTHOR: Rafal'skiy, A.V., Engineer
TITLE: The Book on "Bending of Pipes" (Kniga o gnut'ye trub)
PERIODICAL: Stroitel'stvo truboprovodov, 1959, Nr 3, p 30 (USSR)

ABSTRACT: The article is a review of the book by A.I. Gal'perin, entitled "Bending of Pipes", published in 1958 by the State Publishing House of Literature on Construction, Architecture and Building Methods; it contains 130 pages. The writer of the review speaks in laudatory terms about the book and acknowledges the fact that the author has covered the subject exhaustively, though the information given is at times too concise to be useful for practical purposes. The book deals with all methods of bending pipes, including bending in hot and cold condition.

Card 1/1

BERNASKOVSKIY, Yu.T.; RAFAL'SKIY, B.V.

Electric level indicator for the sodium hydroxide solution in a
decarbonizer. Kislerod 12 no.2:47-48 '59. (MIRA 12:8)
(Liquid level indicator) (Oxygen)

14(1)

AUTHORS: Bernasovskiy, Yu. T., Rafal'skiy, B. V. SOV/67-59-2-12/18

TITLE: Electric Indicator of the Level of the Caustic Acid Solution
in the Decarbonizer (Elektricheskiy ukazatel' urovnya rastvora
yedkogo natra v dekarbonizatore)

PERIODICAL: Kislorod, 1959, Nr 2, pp 47-48 (USSR)

ABSTRACT: The level of the caustic acid solution in the decarbonizer has hitherto been observed by means of control valves. For the purpose of a less complicated observation a device was designed upon a suggestion of B. V. Rafal'skiy whereby the level can be easily checked. The principle of the device is based on the electrical conductivity of the sodium solution. A smaller communicating vessel is connected to the container of the decarbonizer into which three wires of different length are introduced. As soon as the wires are dipped into the lye an electric circuit is closed and small lamps flash up. The assumption that the polyvinyl insulation of the wires might be rapidly destroyed in the strong lye proved to be unfounded. After an operation of 900 hours the insulation was still undamaged. The observation of the level of the lye secures

Card 1/2

Electric Indicator of the Level of the Caustic Acid SOV/67-59-2-12/18
Solution in the Decarbonizer

more accurate checking than the hitherto employed control valves; it permits uninterrupted and remote control. There is 1 figure.

Card 2/2

RAFAL'SKIY, I. (Ussuriysk, Primorskiy kray)

Fire crowbars. Pozh. delo 4 no. 7:19 J1 '58.
(Fire departments--Equipment and supplies)

(MIRA 11:S)

RAFALSON D.I.

11B

Evaluation of nicotinic, magnesium, calcium, and lobeline methods of determination of the rate of blood circulation
D. I. Rafal'son (Blood Transfusion Inst., Leningrad). *Terapret. Arkh.* 23, No. 4, 57-62(1951). --The nicotinic acid method has the advantage of being completely harmless, but gives slightly lower results than those obtained from the other 3 methods. The Mg method is superior to the Ca method since accidental subcutaneous deposition does not lead to complications. The lobeline method gives more objective results, is suitable for graph construction, etc., but frequently gives side reactions (nausea, shortness of breath).
G. M. Kosolapoff

VOROB'YEV, A.A.; ASHKINAZI, L.I.; RODYAKINA, V.Ya.; RAFAL'SON, D.I.; BRON, O.B.

Change in the blood as an index of the general reaction of the organism to the administration of precipitated anatoxin. Zhur. mikrobiol.epid. i immun. 28 no.1:84-89 Ja '57. (MLRA 10:3)

1. Iz Leningradskoy gorodskoy stantsii perelivaniya krovi i Voyenno-morskoy meditsinskoy akademii.

(CLOSTRIDIUM TETANI,
toxin, eff. on blood (Rus))

(BLOOD,
eff. of Clostridium tetani toxin (Rus))

BARABANOV, V.F.; GONCHAROV, G.N.; KRYLOVA, L.Ya.; RAFAL'SON, M.B.

Evolution of fluorite crystal forms in the ore veins of the
Bukaka deposit. Zap. Vses. ob-va 92 no.3:316-322 '63.
(MIRA 17:9)

1. Kafedra mineralogii Leningradskogo universiteta.

RAFAL'SKIY, R.

Production of uranium in the Union of South Africa. Atom.energ.
8 no.6:572-573 Je '60. (MIRA 13:6)
(South Africa, Union of--Uranium)

4.00.00

77231
SOV/89-8-1-25/29

AUTHOR: Rafal'skiy, R.

TITLE: Uranium Production in Canada. The News of Science and Technology

PERIODICAL: Atomnaya energiya, 1960, Vol 8, Nr 1, pp 82-84 (USSR)

ABSTRACT: This article describes the Canadian uranium deposits and presents detailed statistics on Canadian uranium production in 1958. All of the above data is compiled from 1 U.S., 1 Soviet, and 5 U.K. references listed. The five most recent English-language references are: (U.S.) Mining World, 21, Nr 8, 39 (1959); Mining J., Nr 6475, 296 (1959); West. Miner and Oil Rev., 32, Nr 8, 21 (1959); West. Miner and Oil Rev., 32, Nr 6, 35 (1959); Appl. Atomics, Nr 207, 21 (1959).

Card 1/1

Rafal'skiy R.P. 6
21 27 454
Action of hydrothermal sulfide solutions on cobalt and
nickel arsenides^{2/3}; P. Rafal'ski (Inst. Geol. Ore De-
posits, Petrog., Mineral. and Geochem. Acad. Sci. U.S.S.R.,
Moscow); *Geokhimiya* 1956, No. 7, 67-72.—A report of
qual. expts. on treatment of Co and Ni arsenides with aq.
solns. of Na₂S₂O₃ and H₂S at elevated temps. and pressures.
The purpose of the expts. was to follow the changes which
can occur with arsenides deposited previously in hydro-
thermal veins under natural conditions, with action on them
later of solns. contg. S. Minerals studied were ematite
and niccolite. Native Ag, As, and argentite which are
often assoc'd. with the minerals in hydrothermal deposits
were also studied. The action of solns. of Na₂S₂O₃ and
H₂S on these minerals at 300° was studied. Results of
expts. with arsenides are tabulated. Another table gives
results of chem. analyses of ematite before and after treat-
ment with 0.5N soln. of Na₂S₂O₃ at 400°. G. S. M.

RAFAL'SKIY, R.P.

Solubility of ore-forming sulfides in aqueous solutions.
Ya. I. Ol'shanskii and R. P. Rafal'skiy. Proc. Acad. Sci.
U.S.S.R., Sect. Geochim. 108, 41-3(1950)(English transla-
tion).—See C.A. 51, 962d.

R.M.R.

2

2

Khimiya, R.F.

USSR/ Cosmochemistry. Geochemistry. Hydrochemistry

D.

Abs Jour : Referat Zhur - Khimiya, No 4, 1957, 11552

Author : Ol'shanskiy Ya.I., Rafal'skiy R.P.

Inst : Academy of Sciences USSR

Title : On Solubility of Ore-Forming Sulfides in Aqueous Solutions

Orig Pub : Dokl. AN SSSR, 1956, 108, No 5, 882-884

Abstract : On the basis of two experiments of crystallization of covellite and galenite from aqueous solutions at 300° the conclusion can be drawn that solubility of sulfides in aqueous solutions at elevated temperatures exceeds considerably the values utilized at the present time in geological literature.

Card 1/1

SIDOROV, G.P.; RAFAL'SKIY, R.P.

Hydrothermal synthesis of uraninite. Atom. energ. Supplement no.6:
83-85 '57. (MIRA 11:?)
(Uraninite)

RAFAL'SKIY, R.P.; DYMKOV, Yu.M.

Tubular pseudomorphoses of argentite as a substitute for native
wire silver and the temperature of their formation. Dokl. AN
SSSR 112 no.4:746-748 F '57. (MLRA 10:4)

1. Institut geologii rudnykh mestorozhdeniy, petrografii, mineralo-
gii i geokhimii Akademii nauk SSSR. Predstavлено akademikom D.S.
Korzhinskim.

(Argentite)

"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R001344010012-5

"The International Organization of the Atom for Peace, its Activities and
and its Effect on International Citizens" by R. A. Repoloskiy.

Report presented at 2nd UN Atoms-for-Peace Conference, Geneva, 9-13 Sept 1958

APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R001344010012-5"

NAVAL INTELLIGENCE

21(4) PLATE I BOOK REFERENCE SOY/2773

International Conference on the Peaceful Uses of Atomic Energy. 2nd, Geneva, 1958.

Biology Sovetskogo Universiteta, Radiotekhnika i reaktorystvo metally. (Reports of Soviet Scientists: Nuclear Fuel and Reactor Metals) Moscow, Akademiya, 1959. 670 p. (Series: 15; Total: 5,600 copies printed).

Mr. (Title page): A.A. Bocharov, Academician, A.P. Vinogradov, Academician, V.A. Tsvetkov, Corresponding Member, USSR Academy of Sciences, and A.P. Zarivov, Doctor of Technical Sciences; Tech. Ed.: V.V. Pavlenko and G.M. Pechantseva; Tech. Ed.: E.I. Kasev.

PURPOSE: This volume is intended for scientists, engineers, physicians, and biologists working in the production and peaceful application of atomic energy for medicine and industry. It is also intended for students of schools or higher technical education where the subject is taught; and for people interested in atomic science and technology.

CONTENTS: This is volume 3 of a collection of reports on atomic energy, presented by Soviet scientists at the Second International Conference on the Peaceful Uses of Atomic Energy, held in Geneva from September 1 to 13, 1958.

Volume 3 consists of two parts. The first part, edited by A.I. Zubov, is devoted to geology, prospecting, concentration, and processing of nuclear source material. The second part, edited by G.I. Zverev, includes 27 reports on metallurgy, metallography, processing technology of nuclear fuels and reaction metals, and neutron irradiation effects on metals. The titles of the individual papers in most cases correspond word for word with those in the official English language edition on the Conference proceedings. See SOY/2001 for the titles of the other volumes of the set.

Sokolova, T. N.; Dr. Naumova, A.B. Serovets, and O.P. Shishkina; The Effect of Radiation on the Occurrence of Uranium Concentration in Sedimentary Rocks (Report No. 2059)

13

Kostylev, N.P. The Experimental Investigation of the Conditions of Uranium Transport and Deposition by Hydrothermal Solutions (Report No. 2057) 55

54

Bel'strem, Iu. I. From Occurrence of Uranium in Some Coal (Report No. 2052)

54

Orlitskaya, G.B., Iu. I. Bulava, E.V. Geritsa, and E.M. Savil'yanova. Mineralogical Types of Oxidation Zones of Hydrothermal Uranium Deposits in the USSR (Report No. 2155)

69

Shchegolev, I.P., Iu. I. Lash, R.L. Brubaker, Yu. P. Sosulin, and V.I. Dvornikov. General Geologic Features, the Localization of Uranium Mineralization and the Ratio Types of Structures of Hydrothermal Uranium Deposits (Report No. 2052)

65

65

Cont 2/1

11 (7)

AUTHORS: Rafal'skiy, R. P., Kudinova, K. F. SOV/89-7-4-4/28

TITLE: The Experimental Investigation of the Conditions for the Reduction and Precipitation of Uranium by Minerals

PERIODICAL: Atomnaya energiya, 1959, Vol 7, Nr 4, pp 333-337 (USSR)

ABSTRACT: The present paper deals with the results obtained by an experimental investigation of the reduction- and precipitation processes of uranium by certain minerals which are widely spread in hydrothermal uranium deposits. For this purpose a plate of the precipitating mineral, which had a thickness of from 0.2 to 0.4 mm, was fitted into a quartz ampoule, after which several millimeters of a solution of UO_2SO_4 were introduced. The ampoule was evacuated, soldered, and heated. The uranium was precipitated with natural minerals with the exception of pyrrhotine, which was produced in the laboratory. At the increased temperatures the uranium was reduced, after which it was precipitated from the acid uranyl sulphate solutions by means of pyrite, pyrrhotine, galenite, chalcopyrite, siderite, smaltine, and native antimony (which, in its lowest valences, contains Fe, S, and As). As a result of the redox reactions,

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The Experimental Investigation of the Conditions for the SOV/89-7-4-4/28
Reduction and Precipitation of Uranium by Minerals

a vestige of UO_2 is produced on the precipitating mineral, and hematite is separated on the ampoule walls or in the mixture with UO_2 , and on the surface of the solution an emulsion of elemental sulphur is separated. The character of the UO_2 produced depends mainly on the composition of the precipitating mineral and on the temperature. The influence exercised by the composition of the precipitating mineral is in some cases particularly marked. At 150°C , a very fine-grained unit forms after 120 hours on the pyrite, in which the presence of U_3O_8 was detected by X-ray analysis. Under similar conditions, a precipitate with the crystal lattice of UO_2 was produced in galenite. At 200 to 350°C , crystalline uraninite was obtained on pyrite and galenite. The strongest influence was exercised by temperature in the case of the precipitation of uranium by siderite. A table contains data concerning the dependence of the lattice constant of UO_2 upon the conditions of production. An increase of the duration

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The Experimental Investigation of the Conditions for the SOV/89-7-4-1/28
Reduction and Precipitation of Uranium by Minerals

of the experiment from 6 to 113 hours ($T = 250^{\circ}\text{C}$) caused no qualitative changes in the character of UO_2 in its precipitation on pyrite and galenite. The following conclusions may be drawn from the results obtained: (1) At increased temperatures and pressures, U(VI) is reduced in acid solutions by iron, sulphur, and arsenic (which are present in natural minerals). Uranium is precipitated as a result of the reduction as crystalline uraninite, "collomorphous" uranium resin, or as carbonblack-like vestiges of uranium-blackening. (2) The character of UO_2 depends on the composition of the precipitating mineral which determines the interaction of the solution with the mineral. (3) The character of UO_2 depends also on temperature, at the rise of which also the lattice constant UO_2 increases. With rising temperature the reduction of U(VI) becomes ever more complete. Crystalline uraninite can, by the way, form already at 100°C , whereas uranium resin and even uranium black precipitates at 250°C . (4) In the case of a considerable velocity of the interaction between the solution and the mineral

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The Experimental Investigation of the Conditions for the SOV/89-7-4-4/28
Reduction and Precipitation of Uranium by Minerals

(precipitation on siderite) the character of UO_2 depends on the concentration of uranium in the original solution. The results obtained by these experiments in general confirm the possibility of the deposition of primary minerals by the reduction of U(VI) by the components of natural minerals under hydrothermal conditions. There are 2 figures, 2 tables, and 5 Soviet references.

SUBMITTED: February 18, 1959

Card 4/4

RAFAL'SKIY, R.P., KANDYKIN, Yu. M.

Experimental data on the crystallization of the uranium dioxide
under hydrothermal conditions. Geol. rud. mestorozh. no.1:98-106
(MIRA 13:7)
Ja-F '60.
(Uranium oxide)

KONSTANTINOV, M.M. [deceased]; RAFAL'SKIY, R.P.

Solubility of galenite and lead transport under conditions prevailing
near the earth's surface. Geokhimiia no.3:280-281 '60.
(MIRA 14:5)

(Galena)

RAFALSKIY, R.

New types of beryllium deposits in the U.S.A. Atom.energ. 10 no.5:
542-543 My '61. (MIRA 14:5)
(United States--Beryllium)

L 48032-65 EWT(m)/EPF(n)-2/EWP(t)/EWP(b) Pu-4 LJP(c) JD/WA/JG/DM

s/0089/65/018/002/0189/0191

ACCESSION NR: AP5005815

AUTHOR: Osipov, B. S.; Rafal'skiy, R. P.

TITLE: Some data on the equilibrium in systems $\text{MeS}(\text{MeS}_2)$ - UO_2SO_4 - H_2O at increased temperatures and pressures

SOURCE: Atomnaya energiya, v. 18, no. 2, 1965, 189-191

TOPIC TAGS: uranium, uranium ore, equilibrium concentration, temperature dependence

ABSTRACT: One of the authors (Rafal'skiy, Fiziko-khimicheskoye issledovaniye usloviy obrazovaniya uranovykh rud [Physicochemical Investigation of the Conditions for Formation of Uranium Ores], Gosatomizdat, 1963) has studied qualitatively the conditions and products of reduction of hexavalent uranium by some ore minerals, particularly pyrite and galenite. The present study was quantitative and aimed at determining the equilibrium concentrations of uranium in the presence of sulfides at temperatures 200-360°C. This study is of interest because uranium pitchblende is frequently located in mineral deposits rich in sulfides. The experimental pro-

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